THE LANCET.

LECTURES

ON THE

THEORY AND PRACTICE OF PHYSIC,

By DR. CLUTTERBUCK.

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Lecture XIV.

On Inflammation in general.

Gentlemen,

You will find, in authors, diseases divided into *general* or *universal*, that is, those that are supposed to affect the whole system at once; and *local*, or such as are confined to individual parts or organs. The chief example of the former that has been adduced, is *fever*, which has almost universally been considered as a disease of the whole system: of the latter, may be mentioned *pneumonia*, *gastritis*, *hepatitis*, or any other of the diseases called *topical*, where a single organ only is primarily affected.

Now there are good grounds for questioning the justice of this arrangement, and for doubting whether there be any *universal diseases*, in the sense here alluded to; that is, in which the whole body is at once, and from the first, affected. This is a point of no small practical importance; for if, as I suppose, diseases are always, at their outset, affections of individual parts, and not of the whole body, (however general they may afterwards become, by sympathy of one part with another,) there will be an advantage in practice in always looking to the primary affection, as the first cause of the general disorder existing in the system at large. It leads us to what may be termed a radical mode of cure. Whereas, the considering disease as a universal affection, in which no one part suffers essentially or exclusively, more than others, leads us to palliatives merely; for the removal of the general symptoms, supposing these to be only secondary, may leave the primary one unsubdued; while the means employed may even be injurious to the primary disease. To illustrate this, I may refer you to the case of what is called *idiopathic fever*, which, as I shall endeavour to prove to you hereafter, is primarily a topical affection of the brain, and consists in actual inflammation of the cerebral substance. Now admitting, for the present, this to be a just view of the matter, our great object throughout the disease will be, to relieve the organ principally and primarily affected, by such means as the nature of the affection suggests, and which experience, at the same time, may have confirmed the utility of: that is, by antiphlogistic measures of all kinds, adapted and proportioned to the circumstances of the case, such as the *stage* of the disease, the *habit* of the patient, and the like; disregarding, or, at all events, considering as secondary in point of importance, the general weakness and other symptoms that arise out of the topical affection of the brain, which constitutes the real disease.

The chief reason that the *topical* nature of fever has been denied, appears to be that the disease, in many instances, makes its approaches so mildly and insidiously, that the topical symptoms are overlooked, or do not come under the cognizance of the practitioner. The disease is not seen, till it is fully formed, and has affected the whole system. Another is, that when the attack of fever is sudden and violent, the influence of the brain is such as to disturb, almost instantaneously, the whole system, mind as well as body; leaving hardly a distinguishable interval, between the *topical*, and the *general* affection.

Another ground for questioning the existence of *universal diseases*, is the different susceptibilities of different parts of the body; so that an application or cause which powerfully influences one part, will make little or no impression upon others. I hardly know a single agent, which is capable of impressing in the same manner every part of the body;

or, if it were capable, which could be applied so as to affect all at once. Whereas, there is no difficulty in conceiving general disorder of system to be produced by disease of an individual part, especially a part of such paramount influence as the brain.

Discarding, therefore, the notion of *universal disease*, I shall call your attention to a division of diseases into *general* and *local*, though in a different sense to that I have just mentioned.

The different organs of which the body is composed, are all made up of the same simple or primitive textures; namely, *blood vessels*, *absorbents*, and *nerves*, united together by cellular or connecting membrane. Now these simple or primitive textures, being essentially the same every where, are consequently, liable to the same forms of disease. Thus diseases of *blood vessels*, of *absorbing vessels*, and of *nerves*, are *general* diseases, since they may occur any where in the body, and are the same in their nature and treatment, so as to admit of a general doctrine being laid down with regard to them. As an example of such *general disease*, in the sense here intended, may be mentioned *inflammation* more particularly, which is clearly an affection of all these primitive textures at once, blood vessels, nerves, and absorbents; and may arise any where in the body; so that, in this sense, inflammation is a *general* disease, one that may affect any part, though not all parts at the same time. *Hæmorrhage* again is an affection chiefly of the blood vessels, and may take place in various parts of the sanguiferous system, (though not so extensively as inflammation;) while it is the same as to its general nature, wherever seated.—Lastly, *dropsy*, in which both *blood vessels* and *absorbing vessels* are concerned, ranks among *general diseases*, upon the grounds already stated. The affections of *nerves*, which constitute one of the simple or primitive textures, cannot be sufficiently understood, without reference to the brain and nervous system altogether.

We are now, therefore, to enter upon the consideration of *General Diseases*, according to the order just laid down; namely, *inflammation*, *hæmorrhage*, and *dropsy*: beginning with inflammation, as the most extensive, as well as, in all respects, the most important.

General Doctrine of Inflammation.

This is a subject of paramount importance; for inflammation is unquestionably the most frequent, often the most painful, and, upon the whole, the most dangerous of diseases. It produces the most striking changes in parts; it alters the appearance, the feelings, the functions, and, ultimately, the structure of the part which it affects. It so changes the natural actions, as, in many cases, to cause it to form, or, as we express it, to *secrete* poisonous matter, as in the instances of the *variolous*, the venereal inflammation, and many others. And when to this I add, that the consideration of inflammation involves in it the doctrines and treatment of most other diseases, such, at least, as are really important and dangerous, I need say no more to excite your closest attention to the subject. Inflammation, in short, constitutes the essence of nearly all *acute* diseases, while it lays the foundation of all our *chronic* ones, I feel no hesitation in saying, that when you have once made yourselves thoroughly acquainted with the nature and character of inflammation, in all its bearings, and have learned to treat it properly in all its forms and varieties, you will have little more to learn. The subject, however, is one of great extent, and a perfect knowledge of it is difficult of attainment. We shall find it requisite, therefore, to devote no inconsiderable portion of our time and attention to its investigation.

In order to treat the subject usefully or satisfactorily, we must proceed with it in a methodical way; first pointing out the signs or characters of the disease, both local and general, by which we may be enabled to detect it, even when hidden from our view; its *remote* or *occasional* causes must be inquired into, as well as those which give a *predisposition* to it—its intrinsic nature, or essence, investigated, as far as can be done, both by reasoning upon the phenomena, and with the aid which dissection can afford us—its course and terminations described—its different forms and varieties pointed out and explained—and, lastly, the mode of treatment it requires, according to the different circumstances under which it takes place. Not one of these points can be safely neglected, or even hastily or superficially passed over.

There are certain obvious appearances in inflammation, which have at all times attracted the notice of practitioners, even from the earliest ages, and have been considered, indeed, as characterizing the disease; these are chiefly four, namely, *heat*, *redness*, *pain*, and *swelling*. Now these, taken together, undoubtedly serve to prove the presence of the disease; but, individually taken, they are not to be relied upon; since either of them singly may be present, without inflammation, as either may be wanting, and yet

the disease exist. There are many cases, likewise, in which, though these characters may exist, we have no sufficient means of discovering them. It becomes necessary, therefore, to inquire, how far we may rely upon them, individually or collectively, and what other means we have of forming our *diagnosis*, where these fail us.

When inflammation is seated in an external part, such as the skin, it commonly presents all the characters I have just mentioned; the disease then cannot be mistaken. But how far these are essential, and consequently always present, will appear from the consideration of each separately, which we now therefore proceed to.

1. *Heat.* The very term *inflammation*, serves to point out the most obvious characters of the disease, and has allusion to the burning heat, as well as the fiery redness, which so commonly present themselves. I hardly need remind you, that the appellation is derived from the Latin word *inflammatio*, signifying *burning*. The Greeks used the term *phlogosis*, a word of the same import. And the disease has been similarly expressed in other languages.

Increase of heat is so general a character of inflammation, that were we able to measure it correctly in all cases, it would probably be found to be universally present. In very minute inflammations, and in the slighter degrees of the disease, it is however, obviously difficult, if not impossible, to do this. The heat of an inflamed part varies, from two or three, to eight or ten degrees above the ordinary standard, according to the degree of inflammation present, and the nature of the part affected. The natural heat of the central parts of the body, is from 96° to 98°; but in the extremities, it is commonly 5° or 6° less than in the centre. Hence, when inflammation is seated in the extremities, the heat of the part may be actually below that of the centre of the body; yet it will be above the healthy standard of the part affected. It is this circumstance which has led some to say, that increase of heat is not essential to inflammation. The heat of an inflamed part is, at times, greater than that which takes place in a fever, or any other disease.

This character, increase of heat, is not of itself sufficient to prove the existence of inflammation, though it is always a suspicious circumstance; but must be taken in conjunction with others, before we can venture to rely upon it. Increase of heat may be produced by friction, exercise, or any cause that increases the circulation of blood in a part, without inflammation being present. On the other hand, a part may be actually hotter than natural, and that arising from inflammation, yet from being deeply seated, we may be unable to detect the change. But although increase of heat is not always decisive in showing the presence of inflammation, it is a sign of great use to us in practice, as it often leads to a further investigation, which may determine the point; and, in doubtful cases, it may be pretty safely relied upon. Thus, in infants, when, upon grasping the head between the hands, we find a considerable increase of heat within, it is a strong ground for believing inflammation to be going on in the brain or its membranes; and the same with regard to the thoracic and abdominal cavities.

2. *Redness.* This is by no means a necessary character of inflammation, since it is not always present; nor, on the other hand is it, when present, always a sign of existing inflammation; for parts may turn vividly red by heat or friction, without being actually inflamed. Mere redness is consistent with healthy action; but, in inflammation, the vascular action is morbidly changed, as well as increased. Redness, again, takes place in many parts after death, from gravitation of the blood into the most depending vessels; and the parts so reddened, have been often said to be inflamed. Many errors of this kind have been fallen into, which you ought to be aware of.

Inflammation only reddens parts, whose vessels are sufficiently large to admit red blood, such as the skin and many others. Some parts which do not carry red blood in health, may nevertheless become red under inflammation, the vessels becoming larger under this disease. Such is the case with the serous membranes. Redness in these, therefore, is to a certain extent, characteristic of inflammation. But there are several structures, the vessels of which are so extremely minute, as not to admit red blood into them, even under inflammation. This is the case with regard to the ligamentous structure, the cornea lucida, the arachnoid membrane, and the medullary substance of the brain. The existence of inflammation in these parts, therefore, is not to be determined by redness, but by other signs, which I shall have occasion to mention.

Again, parts may have been actually red from inflammation during life, but the redness may have disappeared after death. This is the case in persons who have suffered ophthalmia at the time of death; the redness of the *tunica conjunctiva* disappears. I have seen the skin of

the abdomen intensely red from inflammation during life, where the redness has wholly disappeared after death, so as to afford no evidence of inflammation having existed in the part. This is easily understood. In the last act of life, the blood is generally expelled from the capillaries back into the larger trunks; and the surfaces of parts, in consequence, become pale and colourless. Inflammation must have existed for some considerable time, before it produces so permanent an enlargement of vessels, as to allow of their retaining a conspicuous quantity of red blood after death.

I may remark further, that when internal parts are the seat of the inflammation, we are unable to judge of their colour. Upon the whole, therefore, redness is a very equivocal sign of inflammation and is only to be relied upon in conjunction with other signs.

3. *Pain.* This is perhaps the least to be relied upon, of all the symptoms of inflammation, though it is a very frequent attendant of the disease, and therefore should excite our suspicions. It may take place in all degrees, from the troublesome sensation termed *itching*, up to the most acute pain. The degree or danger of inflammation is, however, not always to be judged of, by the pain which the patient is suffering. For, in the first place, it depends upon the sensibility of the part affected, whether the disease will be accompanied with more or less pain. Violent inflammation of the substance of the lungs, and of the cerebral substance, often take place, with little pain. And the same is the case with the liver, which is not a very sensible organ. But when membranes are actively inflamed, they generally give rise to very acute pain, though the danger is not proportionate. The nature of the disease, also, may incapacitate a patient from describing his sensations; as when the brain is the organ affected. And the same inability may occur from the natural imbecility of the patient, his age, or other circumstances. That pain is not essential to inflammation, is proved by another fact, which is, that parts are sometimes rendered completely insensible by paralysis; yet they are still susceptible of inflammation, as from the application of blisters, &c.

Pain is produced by other causes, as *spasm*; and it is of consequence to distinguish *inflammatory* from *spasmodic* pain, because the treatment is different in the two cases. Pain arising from inflammation, is pretty constant, yet not absolutely uniform in degree. *Spasmodic* pain, on the contrary, is always accompanied with marked remissions. The kind of pain, also, serves in some measure to distinguish it, though it is not easy to describe the difference. Pain proceeding from inflammation, is in general accompanied with heat, and is, therefore, often called a *burning pain*; on the contrary, the pain arising from *spasm*, is of a more *cold* nature. The pain of *colic* is very different from that of *enteritis*. But the strongest ground of distinction between *inflammatory* and *spasmodic* pain, is, that the former is *increased* upon pressure, whereas the latter is *diminished* by the same cause. The pain of an inflamed part is often of a throbbing kind, that is, it is increased at every pulsation of the arteries; but this takes place only where there are tolerably large arteries in the part. Now as in this case the pain arises from distention, we find that every increase of distention aggravates it; as pressure made upon the parts, and the dependent posture.

4. *Swelling.* This is one of the most general effects of inflammation, and indeed may be said to be universal. The most delicate membranes acquire additional thickness, when inflamed, although they are not at the same time reddened. The degree of swelling, depends chiefly upon the texture of the part. If the texture be loose, as in cellular membrane, the swelling will be considerable. We have an example of this in the cellular substance of the eyelid, where a slight dedree of inflammation will occasion so much swelling, as to close the eye altogether. In more dense structures, as the ligaments and bones, the swelling will be much less. Yet even these parts are not exempt from this effect; though, with respect to bones, it takes place much more slowly.

Although parts in general become swelled under inflammation, this cannot happen with respect to the entire brain; for this organ being enclosed in an unyielding case of bone, cannot increase in bulk altogether. The effect here, therefore, must be different. If any of its vessels are enlarged in their diameters, or effusion of any kind takes place into its cavities or interstices, other parts must suffer compression. In this way, inflammation in one part of the brain, may have the effect of compressing the blood-vessels of the neighbouring, or even the most distant part; so as to impede or interrupt the circulation there; and consequently disturb, if not suspend, its functions. And thus disease in one part of the brain may not only derange the functions of the part immediately affected, but likewise those of other parts of the same organ,

and, subsequently, those parts of the general system which are connected with them; rendering the symptoms of inflammation in the brain far more numerous and complicated than those of other organs. In children, however, where the sutures are open, we often observe the brain swelling from inflammation, and again subside as the inflammation declines.

These are the obvious, or external characters of inflammation; but they will go but a little way, in enabling us to detect *internal* inflammation. Thus, for example, in inflammation of the brain, neither redness, nor swelling, could avail us much, if at all. It is true that in some cases, the *conjunctiva* of the eye becomes red, when inflammation is going on in the brain or its membranes; but this is not essential. Again, pain could not suffice; as the brain is a very insensible part. Increase of heat, however, may sometimes be detected, not only in inflammation of the brain, but in other internal inflammations; and when we do feel it, we may place great reliance upon it. In inflammation of the thoracic and abdominal viscera, likewise, these obvious characters are of very little service to us. It is, therefore, proper that we should become acquainted with the other signs, by which inflammation may be known, wherever seated.

Other effects of Inflammation.

1. *Induration.* When inflamed parts swell, they generally become at the same time harder in their texture. This is particularly observable in the cellular membrane every where. By this sign, we are often enabled to detect inflammation in the abdomen whatever viscus be affected. It may take place without swelling, and even where the bulk of the part is reduced; as in the liver, which, in some chronic states of inflammation, shrinks in size, but may nevertheless be felt upon examination to be greatly indurated. In the brain, likewise, inflammation hardens the cerebral substance, so as, after death, to show the previous existence of inflammation, as satisfactorily as redness in other parts. Membranes, also, at the same time that they become thickened, acquire additional firmness of texture; as is seen particularly in the arachnoid membrane.

2. *Loss of Transparency* in parts that are naturally transparent, is another of the signs of inflammation having existed in them. This is observed in regard to the *cornea lucida*, the crystalline lens, and vitreous humour of the eye; and in the *tunica arachnoidea* of the brain. *Opacity* therefore, is one of the signs by which inflammation is known to have existed in these structures. Parts that thus lose their transparency by inflammation, do not usually become red, and not until the structure is entirely changed.

3. *Increased Sensibility.* Inflamed parts are generally *tender to the touch*, proving that they have acquired increased sensibility. Even parts that are naturally insensible, often become highly sensible under inflammation; as the bones and ligaments. *Tenderness to the touch*, therefore, becomes a sign of great importance. By pressure, and the pain which this produces, we are often enabled to detect inflammation in parts that are out of sight. And it enables us to distinguish *inflammatory* from *spasmodic* pain, as I observed before; we have examples of this in *colic* and *enteritis*, which by this sign alone may often be distinguished. But we should be aware that spasm may induce, or be followed by, inflammation, and thus the two diseases may exist together. In some cases, the part acquires so high a degree of sensibility, that the action of the arteries may readily be felt by the patient; which is not the case in health. In the whitlow we have a striking example of this; and in inflammation of the brain, the pulsation of the arteries in the head is often bitterly complained of. But although the common sensibility or feeling, is increased under inflammation, the peculiar sensibility is rather diminished, or rendered inaccurate; as in the organs of sense, the distinctness of perception is lost.

4. *Increased Irritability and Contractility* of parts also take place in inflammation. This is seen in the intestinal canal, and other moving parts. Thus *carditis* is attended with great frequency of pulse, the heart being rendered too irritable by the inflammation, to allow much blood to accumulate in it. The same thing is observed in the urinary bladder, which, when inflamed, has its contractility increased, so that it will not bear the usual degree of distention. In short, whatever organ be inflamed, its sensibility, irritability, and contractility, will all be increased. It is thus that in many *brain affections* the mind becomes irritable, while, at the same time, the general sensibility is heightened, and the muscular power increased, or rendered more active and often irregular.

5. *Disordered Function* is an invariable consequence of inflammation. The function may, however, be very variously disturbed. In violent inflammations it may be altogether suppressed, as is seen in nephritis, and in inflammation of the

mucous membrane. In these cases, the natural secretion may be totally put a stop to. In milder cases, the function will be variously altered. And in still milder ones it may even be increased. We have a good example of all this variety of effect, in inflammation of the membrane lining the nostrils. If the inflammation be violent, as it commonly is at first, the secretion will be wholly put a stop to. If, however, it be less violent, or, from continuance has become so, the secretion, at the same time that it is increased is also of an altered nature.—When other signs of inflammation are wanting, or are not to be relied upon, an examination of the function of a part will generally enable us to detect the disease. Hence you learn the absolute necessity of physiological knowledge.—Whenever the function of a part is disordered you may be sure the organ itself is not in a sound or healthy state of action. Thus, for example, if you find any one of the cerebral functions imperfectly or improperly performed you may take it for granted, that the brain is in some way disordered. Whether this disorder be inflammation or not, must be judged of by the other symptoms. If a blood vessel be inflamed, its action will be more or less altered, according to the degree of the inflammation. If a nerve, its sensibility is excited in the highest degree, and that of the parts also to which it goes; as in inflammation of the great sciatic nerve. If an absorbing vessel is affected with inflammation it thickens, contracts, and the passage of the lymph through it is more or less obstructed; and if many absorbents are thus affected, it occasions an anasarcous state of the parts below. This is often observed in lying-in women: as in the disease called by some *phlegmasia dolens*. If a muscle is inflamed, it loses in a great measure the power of acting, and does not readily obey the will; as in some cases of rheumatism, and in strains and bruises of these parts. In the compound organs, the effects vary in each; but the function always is deranged, and that according to the degree of inflammation present. If it be a secretory organ, the secretion is always changed, either in quantity or quality, or both; and, in some cases, it is even rendered poisonous.

6. *Change of Structure.* As inflammation is principally an affection of the blood vessels; and as these are chiefly concerned in the growth of the body, it is natural to suppose that, when inflammation occurs, this structure of a part will in time be altered; inflammation, in fact, always has this tendency, more or less, according to the nature of the part; and sooner or later, according to the degree of the disease, the age of the patient, and other circumstances. Change of structure induced by inflammation will continue after the inflammation is removed. If the change the part has undergone be but trifling, it may gradually disappear. Thus the swelling of parts subsides; the natural transparency is restored, and the blood vessels return to their former dimensions: but when the structure is changed in a greater degree, it commonly continues through life, and the part is rendered incapable of performing its healthy actions. Thus it is that mania succeeds to phrenitis and sometimes to ordinary fever—sometimes disappearing after a few months, and at others continuing through life. This tendency of inflammation, even when slight, to change the structure of parts, shows us the necessity of putting a stop to the disease, particularly if the organ affected be essential to life. Slight inflammation of a part is often overlooked or neglected not only by the patient, but even by the practitioner; and this goes on till the structure of the part is altered; we have then little power over it. We have an example of this in the lungs, in which slight degrees of inflammation are often overlooked, and pulmonary consumption is frequently the consequence. It behoves practitioners therefore, to be very much upon their guard, against this, and to endeavour as quickly and completely as possible to put a stop to the disease. Most of our chronic diseases may be traced to the neglect of inflammation in the beginning.

There is no end to the variety of structure, that inflammation is capable of producing: increase of bulk, of hardness, of vascularity; suppuration, ulceration, schirrus, and carcinoma, all are but consequences of inflammation of different kinds and degrees; with corresponding changes in the state of functions and often destruction to life itself.

It may be remarked of inflammation altogether, that it always tends to the production of new matters, either solid or fluid; and thus tumours and excrescences are formed, on the one hand; or increased discharges, on the other; according to the nature of the part affected, and the degree and duration of the disease.

Effects of Inflammation on the System.

Inflammation is essentially a *local* disease, and not necessarily attended with general disorder of system: as when slight in degree; of small extent; not

attended with much pain; and in habits of little or moderate irritability. But when extensive or severe, even without being attended with pain, it occasions more or less of general disorder, differing according to the state of system at the time, and other circumstances. As the leading symptom of this general disturbance, is *increased heat*, this state altogether has been called, in general language, *fever*: and as it is the consequence of a previous disease (inflammation), it has been called *symptomatic fever* (*pyrexia*:) it being supposed that fever might take place independent of inflammation; when it was called *idiopathic* or *original* fever: this however, I shall endeavour to show, is not the case. It has been also called *constitutional disorder*, or, the *constitution sympathizing with the part*, *general inflammation*—or *symptoms* of irritation.—(This subject will be resumed in our next lecture.)

LECTURES

ON SOME

PRACTICAL POINTS OF SURGERY

DELIVERED TO THE

Students of the late Borough Dispensary,

By MR. ALCOCK.

Lecture X.

Of Fractures.

Gentlemen,

Fractures of the shoulder blade are less frequent than, from its exposed situation, might be expected; but when it is considered that the bone moves freely and extensively upon the chest, and that the only point of firm resistance is that formed by its union with the clavicle, you may trace, in the yielding nature of the connexion of the scapula with the chest, the cause of the rarity of fracture of the scapula.

The acromion, the most exposed point of the scapula, sometimes is fractured by a direct blow upon it, as by the falling of a heavy body. The thin covering at this part, consisting of little beyond the integuments, admits of the easy and effectual examination of the acromion, and if fracture exist, it can scarcely be overlooked or mistaken. The raising of the arm by the action of its muscles is impracticable, whilst the fractured portion of the acromion is drawn downwards by that part of the deltoid muscle attached to it. The treatment consists in pressing the humerus upwards, so as to prevent the fragment from falling below its natural situation, and by bandages and compresses (or other apparatus) fixing the upper extremity to the chest, so as to prevent the motion of the parts upon each other.

Fracture of the neck of the scapula is also of very rare occurrence, so much so, that a hospital surgeon of great experience, and one of the Court of Examiners, has stated that he had only met with one instance of it during a period of 45 years. It is occasioned either by a direct blow upon the shoulder, in a direction downwards and inwards, or by a fall upon the shoulder, the shock being communicated through the head of the humerus to the neck of the scapula. The falling down of the head of the humerus so nearly resembles the displacement by dislocation, that it has happened even in a metropolitan hospital, that the pullies have been used to reduce the supposed dislocation, several weeks after the accident, when, on further inquiry, it was found that the fracture of the neck of the scapula had been ascertained by other surgeons at a comparatively recent period after the accident. The suffering attendant on forcible extension under such circumstances, may be conceived, but cannot be described! When the fracture is recent, it is not difficult to restore the limb to its natural position, and the retaining it by compresses and bandage, so as to fix immoveably for the time the upper extremity to the chest, requires no more skill than what is necessary in the treatment of fractures of the clavicle, or other accidents, which require perfect rest and apposition of injured parts.

Fractures of the humerus, if transverse and lower than the insertion of the deltoid muscle, are the most simple in treatment, and generally successful in result of any of the fractures of the limbs; on the other hand, oblique fractures at the upper part of the bone have been mistaken, and permanent lameness has been the consequence of inefficient treatment. There is often, accompanying such accidents, considerable swelling; but still the diagnosis is sufficiently distinct on careful examination, if the natural relation of the parts be well known, and the deviation from that natural condition of the parts be carefully observed. Perhaps a point

projects at the upper and anterior part of the shoulder, and there is shortening of the limb; with loss of power to move the limb, and pain on passive motion being used. Crepitus may generally be distinguished, and the rotation of the humerus moves the lower fragment, whilst the upper fragment remains stationary.

Several years ago, a case of oblique fracture of the humerus, near its head, occurred, by a boy, subject to fits, falling from a rock. He was taken up in a state of insensibility, and his head was much injured; when he somewhat recovered from the shock, he was unable to give any clear account of the accident. The surgeon upon whom the responsibility of the case rested, considered the swelling about the shoulder and upper part of the arm, which was very great, as merely muscular tension, and directed a cold lotion. Two days afterwards, the shortening of the arm, measured from the acromion to the olecranon, was one inch, compared with the sound arm. No crepitus was observed, and the surgeon thought the humerus safe. On the fourth day the swelling was diminished, but still there was preternatural fulness under the pectoralis major, and some degree of hollowness behind. On the 11th day, crepitus was observed on moving the arm. No treatment relating to the arm. On the 19th day, the surgeon upon whom the responsibility rested, was nearly persuaded of the existence of fracture of the humerus, but not sufficiently to act upon this opinion, as he considered the point (the upper end of the lower fragment) to be *loose*, till another surgeon convinced him that it only moved on rotating the humerus. Gentle extension was made; but union had so far taken place, that no elongation was effected. Twenty-four days after the accident, though the part was firm enough not to yield to any moderate extension, he had no power to raise the arm, but could move it backwards and forwards, yet not sufficiently forwards to render him capable of using the hand in the positions requisite in his business, that of a shoemaker. A consultation was holden, and the question was soon narrowed to a simple choice, either to leave the unfortunate patient lame during the remainder of his life, or to attempt to separate the imperfect union, that the parts might, by subsequent care, be restored to their natural position. The latter was determined upon, one of the consultants having witnessed a neglected fracture of longer duration attended with lameness, which had been restored to the condition of a useful limb by similar means. The refracturing of the part was not so easy to carry into effect. Extension was of no avail; but on using a towel, passed under the place of union, as a fulcrum, and the arm as a lever, the bone gave way. This was repeated before the disunion was sufficiently effected, and the point, which since it had united moved on the axis of the upper part and head of the bone, describing a large circle when the arm was rotated, now moved on the axis of the lower part of the humerus, the point itself having merely rotatory motion. Extension restored the limb nearly to the same length as the sound arm. It was retained, *in situ*, by splints, compresses, and bandages. The result was perfectly satisfactory, although lesser difficulties occurred from time to time, owing to the same cause which had produced the omission of efficient treatment in the first instance; he recovered the perfect use of the arm, and could without inconvenience move it in every direction.

I could adduce other instances in which an imperfect diagnosis in the first instance and consequent inefficient treatment, were productive of permanent lameness and deformity.

In oblique fractures of the upper part of the humerus, the chief points to be attended to are 1st. to make the necessary extension, to restore the natural position of the fractured portions; 2ndly. to support the parts in contact by compresses, bandage and splints, so as to prevent the fractured surfaces from passing beyond each other; 3rdly. to relax the muscles which operate most powerfully in the displacement of the fragments, that the least force may be required to counteract them; and 4thly. to arrange the apparatus in such manner that the examination of the fractured part may be made, from time to time, without disturbance of the fracture, that the favourable progress may not be guessed at, but ascertained; or if any deviation occur, that it may be corrected, lest permanent injury result.

Fractures of the condyles require great care to guard against inflammation of the elbow joint; but, with proper attention, terminate as favourably as other fractures. To relax the muscles attached to the condyles, the bending of the fore-arm upon the arm, to a right angle, is all that is necessary, whilst perfect steadiness of the limb must be preserved, by splints and compresses, till union take place.

Fracture of the fore-arm may be simply

that of the radius or of the ulna; or of both these bones.

Fracture of the radius generally occurs by the shock of a fall being received upon the wrist, and the arch of the radius being broken, as happens in fracture of the clavicle. Pain on moving the hand and inability to perform pronation and supination, together with the deformity, crepitus, and particularly the yielding of the lower fragment when the upper part of the bone is kept steady, are sufficient to afford certainty of the nature of the accident. If neglected, the hand remaining prone during the period of union, the power of supination is lost, or nearly so, and great inconvenience results to the patient in consequence. A young lady in the country fell, and in attempting to save herself the wrist of one hand received the shock; she complained of pain in the fore-arm and was unable to move it. To her mother, who was a very intelligent lady, the deformity was so obvious that she at once concluded the arm (fore-arm) was broken, but the surgeon who examined it did not discover the fracture, and no treatment beyond the use of lotions was adopted. Some months subsequently the patient came to town; the supination of the hand was so nearly lost, that she could not convey a spoon or fork to her mouth; there was considerable irregularity at the point where the fracture had taken place. It was obvious that, by persevering exercise in attempting to perform alternately pronation and supination, a considerable improvement in the use of the hand might be effected; but the difficulty was in finding exercise requiring these motions which should combine amusement; this was however contrived, and she gradually regained the full use of her hand; but not till after many weeks of daily perseverance.

In the treatment of recent fracture of the radius, care must be taken to keep the hand between pronation and supination, that is with the thumb upwards; the bent position of the elbow is essential to the comfort of the patient. The spints should not extend below the lowest point of the ulna, lest, by pressing the hand upward, the arch of the radius be deranged by forcing the fragments too near the ulna.

Fracture of the ulna is much less frequent than that of the radius. The treatment is essentially the same, viz. to relax the muscles, to restore the displaced fragments, and to retain them by compresses, bandage and splints, in their natural position, in easy and steady contact.

The same treatment is required when both bones are fractured; but when the fracture is near the wrist, without great care, both on the part of the surgeon and of the patient, deformity is likely to result.

Fracture of the olecranon has been by some surgeons and anatomists considered incapable of osseous union. Of the practicability of perfect union, under favourable circumstances, I have no doubt; but if the parts be not kept steadily in contact for a sufficient length of time, union by ligament is the usual result, and the weakness of the limb is proportionate to the length of the adventitious ligament.

I have had patients in whom the union was so complete, that the point of fracture after union could scarcely be traced, and in whom the limb was as useful as before the accident; whilst with a headstrong patient, who, in spite of remonstrance, never refrained from using the arm, I have known the detached portion drawn upwards a full hand's-breadth above the elbow, upon the back of the arm.

There being but one muscle, the triceps, which is inserted into the olecranon, and capable of displacing it, it is obvious that to relax that muscle is essential to the retaining of the detached fragment in its proper situation; this is effected by extending the fore-arm so as to render it nearly straight. The assistance of compress, bandage, and a splint to prevent flexion of the elbow will be requisite; but as I have, in the same volume which contains the essay on Education, entered into the details respecting the fractures of the olecranon and patella, I need only demonstrate the mode of applying the apparatus in addition to what I have there stated.

Mr. A. referred to the mode of fixing the arm to the chest, in the treatment of the fracture of the clavicle, as admitting of any required modification in the treatment of fractures of the scapula; and demonstrated the mode of putting up fractures of the arm, fore-arm, and of the olecranon.

REVIEW FROM THE WEST.

Edinburgh Medical and Surgical Journal. No. IX. January 1826.

We are deeply in arrear with our contemporary of the North; two Numbers of his matchless Journal bear testimony to our ungenerous neglect. We acknowledge it was not treating our readers fairly to withhold from them so long that negative instruction which an analysis of the "Original Communications" of these volumes is so well calculated to afford. A thousand apologies we might feign for our taciturnity, but the truth is always the best defence. To be candid, then, we are weary of the perusal of cures and no-cures; of proposals teeming with hope, and designs carried into unsuccessful execution; of facts that are valuable only to the finders, and information that is useless to all except the original proprietors. We would seem to have at length arrived at that ultimate state of professional perfection, when the superabundance of material for the support of all sorts of opinions, on every possible subject, is rather an evil than an advantage—when, to extract good from this mischievous accumulation of miscellaneous matter has become an office of unprofitable perplexity. If every article in the Materia Medica, or out of it, which promised from its nature to produce salutary effects, has not already been exhibited in every variety of the same disease, we sincerely believe that this grand *experimentum crucis* of the efficacy of medicine is on the verge of completion. In what morbid affection has not Mr. Kirby given stramonium?—Mr. Abernethy, mercury?—not to talk of the thousands of imitators, who, adopting the same principle, take up some drug and exhibit it in every complaint, to ascertain in which it might be of any value, when a book or an essay generally terminates the experiment. It was, doubtless, a great oversight committed in the commencement of this voyage of discovery in search of an "Eldorado" of specifics, that no regular plan of operation was laid down which might prevent the confusion of indiscriminate pursuit and the repetition of similar results. Woe! to the critics, all was left to chance; the barks of the adventurers are tossed about by uncertain breezes, crossing each other's courses, and sometimes running each other down in the dark by fatal collision. To illustrate the ludicrous effects of this fortuitous system of exploration, we have only to turn to the chart before us, where we find the "Cathartic," Captain Briggs, master, freighted Tetanus, *via* Liverpool, coming in contact with the "Opiate," Commodore Crowther, commander, laden with the same cargo, and while comparing their log-books, a third cruiser sails up on the same voyage, and puts an end to the disputes of the Captain and the Commodore by assuring them, that he has discovered the object of their contention in a different latitude, and under entirely dissimilar circumstances. Thus, if we may borrow the technicalities of another science to illustrate our own, bays are daily metamorphosed into oceans, islands into continents, and molehills into mountains, by the Parrys and Lyons in quest of a "North-West passage" in Medicine and Pathology. To diminish these inconsistencies and repetitions, we would suggest the establishment of a Board of Control, and the division of the empire into districts, for the investigation of particular diseases by particular persons appointed for that purpose; thus Scotland might be allocated for the cultivation of "cutaneous diseases," under the guidance of Dr.

Duffin; England, for the treatment of "Dyspepsia," and all those anomalous disorders of the digestive organs consequent to repletion, under the superintendance of Mr. Abernethy; and Ireland, for the study of the phenomena of sudden deaths by gunshot-wounds, abstinence from food, and strangulation, under the direction of Mr. Colles, who has qualified himself for the latter duty by his treatise on the Anatomy of the Head and Neck. Under this, perhaps eccentric, arrangement, and with a special clause that no discoverer should cry out Ευρηκα until the rest were satisfied of its truth, our irksome office of exposing pretension to daily revelations in medicine might be reduced, comparatively, to a sinecure. We must, however, proceed in this disagreeable task for the present, somewhat solaced that the quantity of literary rheum secreted in the last number of this emunctory of all the morbid brains in the profession is less than on any former occasion that we have had to examine its contents.

First, then, in the order of precedence, appears an article on "Squamous Disorders," by Doctor Duffin, who speaks most candidly of the merits of his own performance, first:

"It has for this reason been chiefly found necessary here to treat the subject with rather more systematic exactness than the *novelty* of the matter, or practice communicated in the following article, may seem to justify:"

Second, most ingeniously:

"Indeed it is a matter of surprize, when an organ so intimately connected by continuity of surface with the internal superficies of the body, and subservient to so many important offices as the skin, is diseased in its texture, that the general health can escape injury; and it is perhaps only by supposing that the lungs, and probably the kidneys, perform an extra duty, (the one exhaling an increased quantity of watery vapour, and the other in secreting a preternatural flow of urine,) that we are at all enabled to explain the want of influence that squamous diseases seem to possess in their general relation to the health of the animal economy, provided, as we have stated to be highly probable, the daily quantity of perspiration be diminished."

Third, most profoundly:

"Respecting the proximate cause of squamous complaints, it has already been stated, that nothing satisfactory has been ascertained. The exciting or occasional causes are various; but whatever they may be in any particular case, it appears to me, that they would rarely operate, *did there not exist great predisposition, peculiar idiosyncracy, or hereditary tendency to these complaints:*"

And lastly, most practically:

"It must have been evident, from various observations made in treating of the history of these diseases, that there are two states in which they can exist, viz. in an acute, irritable, or inflamed state, or in a chronic or inactive one. And it is upon this that we found our plan of treatment, and not on the name of the accidental variety of the complaint as is too commonly the case."

Oh! thou second Solomon, if candour, ingenuity, profundity of thought, and practical excellence can make man immortal, there must surely be a niche in the Temple of Fame for the possessor of all these merits. But let us hear a summary of the practice; in the chronic stages of these diseases, a mixture of the citrine and tar ointments, a solution of the muriat of mercury in diluted alcohol, baths to the affected parts of an artificial Harrowgate water, the use of the warm-bath, attention to the state of the bowels, arsenical solution in a decoction of the woods, and in the acute forms of these affections, the pathology of which is considerably obscured by an attempt at explanation, bloodletting is recommended. The merits of this essay would have been indisputable, if it had been published forty or fifty years since, and even its value must be great to those (if there be

any) who, by accident or neglect, may be ignorant of its contents. We have but one observation to make upon this subject, that all attempts to class cutaneous diseases, or to fix any particular line of treatment for the cure of each, must prove abortive, for though we meet with cases which agree with descriptions in plates and books, and which will yield to prescribed forms of treatment, in too many instances the practitioner has to contend with the undescribed capriciousness of nature in the production, and often with the inefficacy of all known medicines in the treatment of these affections.

Next follow two cases, by Dr. Martland, of mal-conformation of the genital and urinary organs. The first is a morbid dissection—the second, an account of a similar appearance in a living subject. They seem to belong to that class of *lusus naturæ* which gave origin to a supposition of the existence of a duplicity of sex in the same person. We confess our inability, from a perusal of their history, to extract any thing to gratify the curious, or to instruct those who read to collect useful information.

To these succeed some very apposite observations on infanticide, by Mr. Martin. He seems not in the best humour with the leniency of Juries in such cases, and particularly objects to the one in question. His paper is sensibly written, and appears competent to discuss the too common, and we fear, incorrigible crime of child-murder.

We perceive that Mr. Belcher is determined, come what may, to make the village of Bandon as celebrated for case-writing as for party processions. We may expect to find him a stumbling block in our way in all our future critical excursions through the pages of Mr. Duncan's Review. It is really a shame for that learned gentleman to be accessary to the folly of young men, first by publishing their crude compositions; and, secondly, by enticing them to a repetition of their absurdities, by *privately* complimenting them on the excellence of their ridiculous communications. Both these gentlemen will understand us without further explanation. With respect to the present paper it may be analysed in a single phrase—a case of neuralgic amaurosis cured by fifty-two half drachms, as the writer computes weights, of carbonate of iron. A digression of considerable length follows, in which an unbecoming familiarity is taken with men and matters quite beyond the measure of the author's capacity.

Whoever has not had the sagacity to detect the genuine character of those things called "cases," we advise him to read the essay, from which the following specimen of the true *bathos* is taken, on "Nervous Energy," by Caleb Crowther. "During no period of human history has greater progress perhaps been made in the arts and sciences, than during the last quarter of a century; and the improvement of medicine has kept pace with the other sciences." What a falling off from so lofty a beginning! The reader may guess at what follows this exordium, which might be added to Scriblerus's best examples of the "Art of Sinking." The subject, too, "nervous energy," is in perfect keeping with the author's style. This undefined "something" is the nucleus round which all his fanciful speculations revolve. In proportion, he says, as patients possess this invaluable gift of nature, so will they be able to "weather" disease. Any person, therefore, having this divine attribute about him, according to Dr. Crowther, may laugh to scorn the blunders of physicians, and the inefficacy of their medicines, while the unfortunate "coward," lacking this preservative against mortality, "dies, like a slug, of the first attack of disease." The idea of

the utility of this theory, which has not even the merit of novelty to recommend it, has filled the writer's mind so completely, that he seems to have some notion of attempting the invention of an "accurate nercrometer," by which he could measure the precise amount of each patient's "nervous energy," as then he thinks, if he could not cure every case, he would at least be enabled to foretel with certainty the result of the disease. Will no well-disposed person volunteer his assistance, and help our nervous author in the discovery of the "philosopher's stone"? Amongst other curiosities with which Dr. Crowther has made us acquainted, is a case of idiopathic tetanus, which, marvellously enough, commenced and ended in a fit of hysteria, and all in twenty-four hours. Considering that the patient went through so many diseases in so short a space of time, her case may be looked on as singularly fortunate. But in this, as in every other respect, the case was wonderful, being induced by an apparition, which leads the Doctor insensibly into a train of reflections that would do honour to the meridian of the nursery. When we assure our readers that he sets seriously about proving the impossibility of a soul speaking or emitting sounds, because it is not made of bell-metal, or some such tinkling matter, they may estimate his capability of rational reflection. Surely the man who believes in the existence of a soul separate from the body might not be so un-Hebrewish as to deny it the faculty of speech.

Prince Hohenloe is a very appropriate successor to the preceding case. We are highly pleased with Mr. Duncan's judicious taste in thus running fools in couples. The guilt of the original composition of this work on the miracles of the great prince, cannot, we are happy to say, be attributed to an Englishman, being executed by a rival of the miraculous magician, a Doctor at Bamberg. His labours, however, have found a translator, a portion of whose talent in that line forms the present article. We have no taste, however, for spiritual medicine: one branch of the science is as much as we can manage, so we shall pass on without risking our senses in a conflict of metaphysics.

A case of tetanus at Liverpool has been the innocent cause of a great deal too much *inkshed*, by an interminable paper on that subject, by a Mr. Briggs. He has imbibed a strange idea, that drastic purges will cure tetanus. For his future peace of mind we can assure him they will not. We regret extremely that our space does not permit us at present to do critical justice to the illiteracy of his composition, which, if read to a patient in tetanus, might have the effect of opening his jaws with laughter.

A series of apparently well conducted and neatly reported experiments on the maternal and fœtal circulation, by a Mr. Williams, concludes the volume. His paper does not admit of analysis without mutilation, which we must decline. We may, however, give in his own words the principal result of his researches:—

"Accordingly I am," he says, "inclined to conclude, the maternal and fœtal systems in the canine species to be parts only of a common uninterrupted sanguiferous system."

In a future article, we may be tempted to take up the prior number of this Journal, and give our readers the benefit of its varied contents—a duty which we regret we cannot at present perform from the want of space.

SMALL-POX HOSPITAL.

Report of the Physician (Dr. G. GREGORY) *laid before the General Court of the Hospital for Casual Small-Pox and Vaccination, at St. Pancras, Dec.* 1st, 1825.

THE number of admissions into the Small-Pox Hospital, during the last year, more than doubled that of the preceding, and approached very nearly to the highest ever known since the foundation of the Institution in 1776, thus showing that the disease was epidemic.* To convey some notion of the comparative prevalence of small-pox in the late and former years, and to show, at the same time, the degree of influence which vaccination has had in lessening both the quantity of small-pox in London and its rate of mortality, Dr. G. has constructed "the following Table of admissions into, and the deaths which have happened at the Small-Pox Hospital, within the last fifty years, divided into two periods of twenty-five years each, during the first of which, vaccination was unknown; while in the second, it was universally practised."

Admissions and Deaths at the Small-Pox Hospital, during Fifty Years, viz. from 1776 *to* 1825 *inclusive, with the Rate of Mortality per Cent. in each Year,* (*omitting fractions.*)

Year.	Admissions.	Deaths.	Rate of Mortality per Cent.	Year.	Admissions.	Deaths.	Rate of Mortality per Cent.
1776	374	80	21	1801	177	55	31
1777	497	125	25	1802	175	68	39
1778	269	74	27	1803	98	22	22
1779	351	136	38	1804	48	8	17
1780	175	53	30	1805	280	97	35
1781	646	257	40	1806	100	35	35
1782	122	52	42	1807	172	48	28
1783	382	121	32	1808	128	36	28
1784	351	127	36	1809	146	41	28
1785	314	108	34	1810	149	51	34
1786	175	51	29	1811	94	22	23
1787	362	106	29	1812	144	54	37
1788	142	49	34	1813	69	18	26
1789	285	107	38	1814	79	26	33
1790	192	68	35	1815	101	34	34
1791	277	89	32	1816	141	29	20
1792	188	58	30	1817	160	48	30
1793	358	134	37	1818	58	14	24
1794	213	72	33	1819	193	61	32
1795	180	48	27	1820	142	34	25
1796	447	148	33	1821	117	49	42
1797	51	14	27	1822	194	57	29
1798	265	89	33	1823	151	37	24
1799	151	43	28	1824	199	54	27
1800	250	68	27	1825	419	120	29
25 Years	7017	2277	32½	25 Years	3743	1118	30

* The deaths by small-pox, as reported in the Bills of Mortality, were, in 1821—508; 1822—604; 1823—774; 1824—725; 1825—1209.

The table proves that the ravages of natural small-pox have been diminished by the introduction of vaccination, as will be obvious by comparing the two periods which it embraces. The average mortality has diminished in the proportion of 32½ to 30.

Admissions into the Small-Pox Hospital in the Year 1825.

		Admitted.	Cured.	Died.	Rate of Mortality per Cent.
A	Casual Small-Pox in the Unprotected	263	156	107	41
B	Casual Small-Pox after Vaccination	147	135	12	8
C	Casual Small-Pox after Inoculation	2	1	1	—
D	Eruptive Diseases, not Variolous	7	7	—	—
	TOTAL	419	299	120	29

A remarkable difference will be perceived between the deaths which have occurred among the unprotected, and those who had obtained the advantage of previous vaccination. The records of the Hospital present but few instances of a rate of mortality as high as 41 per cent., yet there is every reason to believe that this would have been the average of 1825, but for the influence of vaccination.

From this table it appears, that more than a third of the patients admitted had been previously vaccinated. The disease, however, was so much modified, and in most instances so extremely slight, that 113 of the 147 left the Hospital cured within fourteen days from their admission. In a few, convalescence was protracted to three or four weeks. Twenty-five passed through the disease in its natural, or unmodified form, of which twelve died.

The object of the following table is to show, from the only distinct evidence of vaccination which can be adduced, viz. the cicatrix on the arm, that the vaccination in all these cases was (with one exception) imperfect and nominal, and not such as an individual should have relied on:—

TABLE.

No.	NAME.	Age.	Where and when Vaccinated.	Character of Cicatrix. *
1	John Richardson	26	In the Country	Not perceptible.
2	Samuel Lacey....	25	.... Ditto	Small.
3	Sarah Woof.....	23	.... Ditto	Ditto.
4	Robert Hanson..	25	Reports himself to have been vaccinated	Not perceptible.
5	John Tubb.....	27	In Hampshire, at 10 yrs. of age	Ditto.
6	Eliz. Olney.....	18	At Hitchin, Hertfordshire	Large and Smooth.
7	Stephen Booth ..	22	In Cheshire	Large and Long.
8	Thomas Cater....	25	In Worcestershire	Large.
9	William Johnson	27	In Bedfordshire	Small, not indented.
10	W. Wells.....	19	In the Country	Like a large Burn-scar.
11	Henry Smith	22	In Suffolk	Could not be ascertained.
12	Mary Butler	23	In Wiltshire	Hardly perceptible.

* The following are the characters of a *perfect* cicatrix :—It should be *distinctly defined*, perfectly *circular*, indented, radiated, and not larger than the size of a common wafer. The diameter of the scar, however, is of less importance than its circular and well-defined edge.

Of the 263 unprotected persons who had the disease casually, 107 died, indicating the mortality as 40.6 per cent.; while of the 25 who supposed themselves protected in like manner, 12 died, = 48 per cent. The latter sufferers were adults, but respecting the ages of the former we are altogether in the dark. Dr. G., however, observes, "that of the 147 who had the disease subsequent to cow-pox, *four only were vaccinated in London*," whence, it would appear, that they were *not* children; as it is reasonable to suppose a great proportion of the unprotected were. The subject of small-pox and vaccination is of great and vital importance, and the idea that the former will easily be extinguished is at best chimerical. Dr. Gregory appears to have drawn up his Report with strict impartiality.

COLLECTANEA.

Observations on the expressed Oil of the Seed of Croton Tiglium. By JOHN FROST, F.L.S., M.R.I., &c.

Of all the medicines lately introduced, perhaps none has excited more attention than the expressed oil of the seed of the croton tiglium.

In a former number of this journal some experiments appeared concerning the component parts of the oil as to inert and active matter, which induced me to repeat them, as well as to make some others which I purpose giving in detail. About five years ago, when the use of this oil was revived, (for it certainly was no new medicine, in proof of which I beg leave to refer to a paper which I published in the year 1822, in the seventeenth volume of the *Medical Repository*,) it attracted particular notice on the part of the medical profession, on account of the smallness of the dose (one drop) acting with such certainty as well as violence; indeed I have lately seen a case of enteritis, in which it acted after enemata, colocynth, &c. had failed. It has been stated with great truth, that one drop, merely applied to the tongue, will produce violent purgative effects.

It has been recommended to administer the oil in the form of draught, by combining it with mucilage of gum arabic and mint-water by some, and an alcoholic tincture by others; both which modes of exhibition are in the highest degree objectionable, as they produce a great sensation of heat about the fauces, which can be traced by the patient throughout the alimentary canal: therefore, the assertion of Linnæus * in his *Materia Medica* appears perfectly correct. The best manner of giving it is in the form of a pill, as by that means the unpleasant feeling about the throat is avoided. The tiglium-seed oil which is on sale, is frequently admixed with olive, castor, or rapeseed oil, which in a medical point of view is rather an advantage than otherwise, as it tends to moderate the violence of its action.

The genuine oil is so powerful as to produce death in the dose of a very few drops, but different samples vary in point of strength, which of course depends on the rate of active matter which they may contain. It is to be remarked that all those authors, who have treated on it, have cautioned their readers concerning its use. Lewis, in his *Materia Medica*, has committed a strange error with regard to the dose. He says that *one drachm* must be the dose, and not a drop. We must, therefore, conclude that he was totally unacquainted with the article about which he was writing, as such a quantity would speedily terminate the life of the person to whom it might be administered. The plant is a native of the East Indies; it is a shrub seldom exceeding ten feet in height. It belongs to the twenty-first class Monœcia and the eighth order Monadelphia of Linnæus, and to the natural order Euphorbiæ of Jussieu.

The male flowers consist each of a cylindrical calyx, which is five-toothed. The corolla consists of five petals of a straw colour, and there are from ten to fifteen stamina. In the female flowers the calyx is many-cleft and reflected under the germen. There is no corolla, but there are three bifid styles. The capsule is trilocular and smooth: each loculus contains one seed. The seeds are somewhat concave on one side, and convex on the other; and they are of a brownish yellow colour. The leaves are pointed, nerved, serrated, supported on long petioles, and stand in alternate order. *

But, to return to the object of this communication, I would observe, that I found that the expressed oil of the seed of this plant was entirely soluble in æther and the oil of turpentine, and partially so in alcohol. One hundred grains of the seed consisted of

32	shell
68	kernel
100	

One hundred grains of the seed were digested in three drachms of sulphuric æther, sp. grav. 71, and afforded 25 grains of fixed oil.

Thirty-two grains of the oil were put into a Florence flask, containing some alcohol previously digested on olive oil, (as recommended in a former number of your Journal,) to prevent (as it is stated in the experiment alluded to) the spirit from dissolving any of the oil of the cro-

* Tiglii grana.
Qualitas, acerrima
Vis, emetica, drastica, exurens.—Vide *Linn. Mat. Med.*, p. 236.

* Croton tiglium foliis ovatis, acuminatis, serratis, basi biglandulosis petiolis, folio brevioribus, racemis terminalibus.—Vide *Linn. Spec. Plantar.*

ton tiglium seed. The mixture was now agitated, and then passed through a filter containing carbonate of magnesia. The filtered solution was now evaporated without heat, and yielded—

Active matter (soluble in alcohol and æther) combined with a very small portion of fixed oil. . . .	8.5
Inert fixed oil	23.5
	32 grains.

It would appear from some experiments lately made in the manner above practised, that one hundred grains of the oil of the tiglium seed afforded forty-five grains of active matter, but I must confess that I cannot find any sample of oil that will furnish so great a per-centage. Now as olive oil is not by any means so soluble in alcohol as castor oil, incorrect results must ensue, in consequence of the alcohol not being fully saturated with a fixed oil prior to its mixture with the expressed oil of the seed of croton tiglium In order, therefore, to obviate this objection, I proceeded in the following manner, *viz.*: Having saturated a given quantity of alcohol of the spec. grav. of 840, distilled water being 1000, I digested in it 100 grains of the tiglium-seed oil; and then, after having shaken the mixture, and allowed it to rest for a time, so that the tiglium-seed oil might precipitate, the supernatant liquor was poured off, and the oil remaining weighed: the loss of weight, which was 21.5 grains, of course gives the rate per cent. of active matter to a great nicety.*

It may now be stated, that out of nearly ninety species of the genus croton only one species is purgative, which is that in question. I have examined the expressed oil of the seed of three species of Jatropha, *viz.*: J. multifida, J. curcas, and J. pandurædfolia; all these possess strong cathartic properties, which I have no doubt pervade the whole family. The fixed oil of the seed of these species had nearly the same chemical habitudes as that of the seed of croton tiglium. I have also found a similar principle existing in the seed of several species of ricinus. The term *tigline* has been assigned by Dr. Paris to the active principle of the expressed oil of the seed of croton tiglium.

* I have never been able to obtain more than 32 per cent. of active principle in the best sample of the oil which I could procure.

Necessity of Water in the Preparation of Lead-Plaster.

Attempting to form lead-plaster, the *Emplastrum Plumbi* of the *Pharmacopœia*, without the use of water, steam being the source of heat, I was surprised to find after several hours, during which time the litharge and oil had been kept at a temperature of 220°, or thereabout, and constantly stirred, not the slightest appearance of combination; upon the addition of a small quantity of boiling water, the oil and oxide immediately saponified: water appeared, therefore, to be essential to the formation of the plaster. It also appeared probable the oxide might be in the state of hydrate. To ascertain if such were the case, I precipitated, by potash, the oxide from a quantity of acetate; the precipitate, when washed, was dried by a heat of 220° until it ceased to lose weight. 100 grains, heated to redness in a tube, gave off nearly 8 grains of water, and assumed the orange-colour of litharge: the recently precipitated oxide was, no doubt, therefore, an hydrate; part of which, with somewhat less than two parts of olive oil, without any addition of water, at a temperature of 212°, formed, in half an hour, perfect plaster. Each of these experiments has been repeated with precisely the same results. I am induced to mention this fact, because all pharmaceutical writers limit the action of the water to that of keeping down the temperature. H.H.—*Journal of Science.*

On the Detection of Arsenic by Lime Water.

"The paper from which the following extracts are made, is by M. Aug. Ludw. Gieseke, and has been published in Schweigger's Journal. We are induced to notice a part of it in consequence of the importance which attaches to any circumstance affecting the indications of arsenical tests. The following process for the detection of arsenic in cases of poisoning, is the joint production of Rose and Berzelius:—'Cut up the coats of the stomach, and place them in the liquid, which is boiled with a few drachms of caustic-potash, in order to dissolve any arsenious acid that might be contained in it. The solution obtained is filtered, heated till it boils, and during the boiling mixed with nitric acid, which is added in small portions as long as any thing separates, and till the liquid has become strongly acid, clear, and of a bright yellow colour; it is filtered while hot; after-

wards nearly, not completely, saturated with carbonate of potash, and made to boil, in order to expel the carbonic acid; then it is boiled with clear lime-water as long as any precipitate is formed; the lime-water first saturates the excess of acid, and then precipitates with the arsenious acid as arsenite of lime, and with the phosphoric acid and other animal substances decomposed in the nitric acid. If, instead of saturating the acid with lime-water, you add first caustic alkali till the liquid becomes alkaline and then add lime-water, no precipitate will be formed, because the arsenite of lime is held in solution by the alkali.

This statement of the solubility of arsenite of lime in a solution of alkali, being in contradiction with certain facts, M. Schweigger was induced to examine the circumstances more minutely, and was ultimately led to the following explanatory experiment:—prepare an arsenical liquid, pour it into three glasses, and add to one portion an excess of caustic-potash; to the second, excess of caustic-soda; and to the third, excess of caustic-ammonia. On adding lime-water, a deposit of arsenite of lime will be formed equally in each of the glasses. Now add to each a few drops of acid, (for instance, nitric acid,) yet so that in all the alkali shall predominate; whilst no solution of the precipitate will take place in the glasses that have the potash and soda in them, it will immediately begin in that with the ammonia; and all the arsenite of lime will be finally dissolved, although the ammonia be not saturated by the acid which has been added. Of course, the solution will take place in the three glasses when any acid is in excess; yet, on saturating the acid with alkali, the precipitate will be re-formed immediately in those glasses that contain the potash or soda, but not in that which holds the ammonia, however one may neutralize the liquid.

By putting muriate or nitrate of ammonia into a liquid containing arsenic, and adding lime-water in any quantity, no precipitate will be formed, even though heat be applied. Thus it will be seen, that it is not the ammonia, as *caustic alkali*, which retains the arsenite of lime in solution, but it is the presence of a soluble salt of ammonia which prevents the formation of the deposit; and if, instead of ammonia, caustic potash or soda be used in the process described by Berzelius, then lime-water will instantly form the precipitate of arsenite of lime.—*Phil. Mag.* lxvi. 253.

Hygrometric Property of Sulphuric Acid.

The quantity of water that sulphuric acid sp. gr. 1.840 is capable of absorbing from an atmosphere saturated with vapour, has lately been determined, by exposure of 50 grains of acid of the above strength to such an atmosphere. In the course of four months, it gained 423.2 grains of water, considerably more than eight times its original weight, its sp. gr. being diminished to 1.0706.—T. G.—*Phil. Mag.*

ANATOMY, PHYSIOLOGY, AND PATHOLOGY OF THE BRAIN.

A Course of Lectures on these interesting and important subjects, was commenced by Dr. Spurzheim on Thursday last, in the Webb-street Theatre of Anatomy, in the presence of a very numerous class of Medical Students. The Doctor, in an admirable Introductory Address, forcibly illustrated the advantages which must result to medical practitioners from their being acquainted with the structure of the brain, and with its healthy and diseased functions, and commented in a spirited manner on the *insane* practice which an ignorance of these subjects leads people to adopt, with a view to cure *insanity*.

The lecture was exceedingly well received, and appeared to give great satisfaction. We have no doubt that all classes of medical men will feel it a duty to attend these valuable Discourses.

ROYAL COLLEGE OF SURGEONS.

To the Editor of The Lancet.

Sir,—I beg to enclose for insertion in The Lancet, the copy of a letter addressed to Sir A. Carlisle, which, I trust, will appear in your next Number.

I am, Sir,
Your obedient Servant,
J. M. C.

To Sir Anthony Carlisle.

Sir,—When you delivered the Hunterian Oration, two or three years ago, I was one of your hearers, and was exceedingly gratified by it; and it is out of no personal disrespect to you, either as a man or as a surgeon, that I signify to you my intention of not being present at the next anniversary; for, independently of the detestation with which I view the

various disgraceful and arbitrary acts which proceed continually from the Corporate Body of the College of Surgeons, I consider it extremely degrading to be obliged to pass down Portugal-street, celebrated only for its stables, butchers' shambles, and dirt,) that I may enter at the *back door* of a building, which has a handsome portal, through which pass none but a self-elected body of about twenty individuals, and some of their very particular friends.

I, for one, protest against such uncalled-for distinctions, and thus set an example which, I trust, will be followed.

I am, Sir,
Your humble and obedient servant,
JAMES MORSS CHURCHILL.

77, Park-street, Grosvenor-square,
February 1826.

We readily give insertion to the letter of Mr. Churchill, and highly approve of the indignant manner in which he alludes to the oppressive and insulting conduct of the Court of the College; but we entirely *disapprove* of his determination not to attend the Oration on Tuesday next, even at the sacrifice of entering the College at the *back door*: the Oration will be delivered only *four days* previous to the Meeting, which is to be held at the Freemasons' Tavern, for the purpose of applying an antidote to the College abuses, and it is probable that on Tuesday some preliminary measure may be adopted. At all events, we hope there will be a very full attendance of the Members at the delivery of the Oration, that the Council and Court of Examiners may receive *unequivocal testimony* of the detestation with which their proceedings are viewed by the great body of the surgical profession.

On the subject of the Meeting, which is to take place the 18th instant, we will say a word or two in our ensuing number, meanwhile we would advise the *general practitioners*, to be on the alert, and have an eye to their undoubted rights.

FOREIGN DEPARTMENT.

ANALYSIS OF FOREIGN MEDICAL JOURNALS.

REVUE MEDICALE—JANUARY.

A Table of Diseases observed at the Hôpital de la Charité, in the Clinical Wards of Professor Laennec, during the last Six Months of 1825, *by M. M. Laennec.*

THE number of patients admitted into the clinical wards of Professor Laennec, during the second scholastic half year, that is, from the 1st of April to the 20th of August, has been 168; the total number of deaths has been 18, which is less than a tenth part, a circumstance which M. Laennec considers very flattering, as occurring in a hospital into which are received indiscriminately all kinds of patients, and which he partly attributes to the greater number being acute, instead of chronic diseases, and partly to the patients being generally young and robust workmen, who had repaired to Paris on account of the busy scenes which were going on in that city during the last summer. On reviewing the different diseases, the following is the result:—

Acute Diseases.

	Number.	Deaths.
Continued fevers	20	1
Intermittent	6	0
Eruptive	4	0
Acute rheumatisms	7	0
Phlebitis	1	0
Anginæ	4	0
Acute catarrhs	8	0
Pleuropneumonies	18	3
Metallic colics	5	0
Chorea	1	0

Chronic Diseases.

Chronic rheumatisms	5	0
Nervous diseases	2	0
Ringworm	1	0
Syphilis	9	0
Cerebral affections	5	1
Paraplegia	1	0
Chronic catarrhs	12	1
Phthises	18	6
Gangrene of the lungs	2	0
Chronic pleurisies	5	2
Diseases of the heart	11	3
Aneurism of the aorta	1	1
Ascites	1	0
Curvitures, contusions, diarrhœa, hypochondriasis	21	0
	168	18

The continued fevers have been much less severe this half year than the preceding, and with the exception of three or four, all have terminated in the course of eight or ten days. Two of the fevers have presented symptoms characterized by nosologists as bilious fevers; viz. cephalalgia, bitterness in the mouth, a yellowish and lemon coated tongue, an inclination for acidulated drinks, disrelish for animal food, with lancinating pains in the limbs, &c. They both yielded to the administration of two emetics at the interval of a day between each; diet, and lemonade. The others have been treated by emollient tisans and bleeding when any local pain indicated the employment of such a measure.

Case of continued Fever.

The case of continued fever which proved fatal M. Laennec considers to be very interesting, and we shall therefore give it. The subject of it was a baker of nineteen years of age, who was admitted into the hospital on the sixth day of the attack. The symptoms were very severe; there were a heat and dryness of the skin, pains in the head and abdomen, with diarhœa; the tongue was dry; there was great prostration of strength, and symptoms of extensive pulmonary catarrh. Leeches applied four times to the anus, and over the abdomen, diet, and the use of emollient tisans afforded not the slightest relief; on the contrary, the patient daily grew worse; delirium had supervened, the tongue was covered by a blackish dry coat, the dyspnœa and stupor were augmented, and at the sixteenth day he manifested unequivocal symptoms of a pulmonary engorgement of nearly the whole of the left lung. Notwithstanding the dry tongue, the diarrhœa, and tenderness of the abdomen, M. Laennec thought proper to order six grains of the tartarized antimony for a dose. The patient did not vomit, neither was the diarrhœa apparently increased. The *crepitus rattle* disappeared after the second day, and the sound on the left side of the chest became much better. In a short time the delirium became more aggravated, and on the thirty-second or thirty-third day of the fever, large sores broke out on the sacrum and back. The appearance of these sores was attended with a marked diminution of the abdominal symptoms; the diarrhœa diminished, the tongue became moist and cool, and the abdomen appeared less tender, although this could not be accurately ascertained, from the constant continuance of the delirium. Towards the fortieth day, the state of extreme prostration, and the rapid progress of the sores, which had now become gangrenous, induced M. Laennec to order a spoonful of burgundy to be given alternately every hour, with an infusion of bark, in which was mixed a scruple of laudanum. This plan was followed by a remarkable change for the better. The delirium ceased, the skin became natural, the countenance was more expressive, and the patient appeared almost convalescent. This change, however, only lasted for two days; the sloughing of the sores could not be arrested, and the man died on the forty-sixth day of the fever.

On examining the body, all the organs of the head and chest were found perfectly healthy. The mucous membrane of the stomach had a dark grey speckled appearance along the great arch and cul de sac, without any other observable alteration. The mucous membrane of the intestines was in general pale, but presented towards the termination of the ileum some small deep ulcerations, which were surrounded by a green or dark areola, with a depression of the mucous membrane, which would seem to indicate that more extensive mischief had existed, and that it was in a course of reparation. All the other viscera were healthy. All who attended the examination were surprized at the few morbid appearances which presented. Over this case, M. Laennec remarked, that at the time when the Brunonian system was first introduced into France, many physicians used to treat their fever cases by giving pure wine as a tisan, in conjunction sometimes with other diffusible stimuli, and the result of their practice did not appear to him (M. Laennec) to greatly differ from those physicians who strictly adhered to diet and diluents, only using the lancet where there was an evident indication for it, and tonics only at the end of the disease. He also cited some cases wherein the use of camphor, æther, and opium, were persisted in for a long time, but without making any visible impression on the disease, and in conclusion quoted the words of Corvisart, who, in speaking of the different methods adopted in the treatment of severe continued fevers, says, "On peut faire ce que l'on voudra, cela ne se dérange pas:" (you may do just as you please, nothing will go amiss.)

Case of Inflammation of the Veins.

The next case of interest which we come to, is the case of *phlebitis*, or what we should call *phlegmasia dolens*; it is certainly one deserving attention, and we therefore subjoin it.

Maurice Mélanie Besancon, a cook,

27 years of age, was admitted on the 6th of August, 1825. She had been ill for two days; the disease had commenced by a swelling of the right arm, the skin of which had become very shining, and in some places extremely red, attended with an excessively acute pain, which was increased by the slightest pressure. Six weeks previously, she had an œdematous swelling of the arms and legs, but without pain, and after taking a few doses of opening medicine, these symptoms disappeared.

The patient could assign no cause for these two affections, and especially the latter. She had had no difficult labour, nor indulged in any excess of the table, neither had she received any blow on the arm, or puncture. Her general habits were correct; she menstruated regularly, and her health was heretofore very good. At the time of her admission she presented the following symptoms:—a flushed and animated countenance, high fever; a quick, hard, and full pulse; a severe pain in the whole of the right upper extremity, which was augmented by the least pressure, and was still more intense along the inner border of the biceps muscle in the course of the brachial vein, which was of the size of the little finger, and as hard as a chord. An erysipelatous redness extended from the axilla, along the course of the brachial vessels and superficial veins of the fore-arm to the dorsal surface of the hand. There was swelling and tension of the whole arm, but particularly of the fore-arm and hand; the tongue was red and moist; there was no pain in the epigastrium, nor any derangement of the digestive functions. After these symptoms, M. Laennec regarded the disease as arising from *an internal or unknown cause*, and doubting the efficacy of bleeding even in the healthy arm, he considered it proper to try the tartarized antimony in a strong dose, and six grains were accordingly ordered to be given in some infusion of orange-flower leaves.

On the 8th of August, being the fourth day of the disease, the fever was much increased, and the pulse considerably harder. The glands in the axilla were not enlarged. On account of the hardness of the pulse, M. Laennec directed some leeches to be applied to the anus. The antimony, which had excited vomiting ten or twelve times, and produced three liquid stools, was increased to nine grains.

9. Fever much diminished; tumefaction and pain of the arm less; erysipelatous redness less on the upper arm, but increased on the fore-arm and hand, which is enormously swollen, with a yellowish spot on the palmar aspect of the thumb, very much resembling an incipient whitlow. The patient has vomited two or three times. Bowels constipated. Continue as before, with the exception of the leeches.

10. No fever; erysipelatous redness nearly all subsided; tumefaction scarcely perceptible, except indeed along the brachial vein, and even there but slightly; pressure on this part only produces a trifling pain. No vomiting; no stools; appetite returning; continue as before.

From this time to the 16th there was a progressive amendment, and the phlegmon which threatened the destruction of the skin along the palmar aspect of the fore-arm, subsided without sloughing. The tartarized antimony, which had previously been reduced to four grains, was ordered to be discontinued. On the 24th she was perfectly recovered, and therefore left the Hospital.

Among the cases of acute pulmonary catarrhs, only two are related as deserving of notice. The one was the case of a young man who was afflicted with a very peculiar kind of convulsive cough, which was attended with a particularly noisy inspiration, exactly resembling the cooing of a turtle dove; the other so closely resembles a case which we lately published in our Hospital Reports, under the care of Dr. Latham, that we shall pass it over.

Case of Aneurisms of the Aorta.

The only remaining case of any importance is one where several aneurisms had formed in the aorta, one of which had burst into the trachea. The subject of this case was a founder, fifty-five years of age, and in whom the disease had existed for two years. There was an aneurismal tumour, two inches and half in diameter which had projected at the superior and lateral parts of the sternum, which it had removed. The patient had also a violent and constant pain in his back, to the extent of the second, third, fourth, and fifth dorsal vertebræ, and in this region was heard the simple isochronous pulsations, corresponding to those of the pulse. M. Laennec, thought in consequence that there was a double aneurism, the one at the arch, and the other in the descending thoracic portion of the aorta. The post-mortem examination confirmed this supposition. The whole of the aorta contained in the thorax was aneurismal, that is to say, it presented, in this extent six or eight partial dilatations, forming as many circumscribed tumours of the size

of a nut. There were two others however, of much greater magnitude. The first, about the size of a large egg, was situated at the arch, and had removed the sternum, and the cartilages of the second, third, and fourth right ribs; it was this which formed the external tumour observed during the man's life time. The second was situated on a level with the fifth, sixth, seventh, and eighth dorsal vertebræ, whose bodies it had so far removed as to approximate the heads and bodies of the corresponding ribs. This last was as large as the first. It was one of the small tumours which had perforated the trachea, and bursting into it nearly even with the bifurcation of the bronchus; the most frightful hæmorrhage ensued, and death soon followed.

The two tumours of the arch and thoracic portion of the aorta were evidently formed by a condensation of the cellular membrane of the artery, beneath which the blood had diffused itself after destroying the internal and middle tunics. In the others, with the exception of the one which had perforated the trachea, the internal tunic was entire, and formed as it were a hernia through the middle coat. It is probable, however, it would soon have given way, as there were numerous little osseous incrustations, more or less brittle, over its whole surface.

Several such incrustations were observable in the intermediate space between the different tumours. Many of the other arteries, and among the rest the radial, crural, and tibial were completely ossified.

Remarkable case of Fungus Uteri, cured by extirpating this organ by means of ligatures. By PROFESSOR RECAMIER.

Madame C., the subject of this case was 60 years of age, of diminutive stature, but of a healthy and stout habit. She first menstruated at the age of twelve, was married at sixteen, and has had six children. All her labours were difficult. After the second accouchment, which took place in her twenty-second year, her uterus descended; and this went on increasing, until it considerably inconvenienced her. Her health, notwithstanding, was very good, and she was possessed of pretty considerable *embonpoint*. At the age of forty-five years, her menstrual discharge became extremely abundant, but ceased within two years. Within three years from this period a discharge came on of a light red tint; this continued until her fifty-sixth year, when it assumed a brown appearance and had a fetid odour. When in her fifty-ninth year this discharge was so very considerable, and had such an extremely disagreeable smell as to annoy all that approached her. At the same time she felt the descent of the part to take place and to present at the external orifice, where indeed she was obliged to support it. She did not experience, however, any pain or uneasiness in the tumour. Within the three last years, she has experienced from time to time some slight febrile attacks, and her stoutness has considerably diminshed. M. Recamier was consulted in the course of last October, and in consultation with M. Margalin, the expediency of the operation of removing the parts was decided upon.

On desiring the patient to strain, a tumour presented itself at the external opening of the vagina, and pulling it a little upwards, it was in this way withdrawn, and the uterus, into which it was fixed, also presented at the vulva. This tumour had a brownish appearance, and was of a cylindrical from, it was three inches in length, and about an inch and half in diameter, having a slightly lobulated appearance and ulcerated in its whole extent; it was covered by a very fetid suppuration, not bloody, and was extremely tender to the touch. Its base, which was broad, was attached to the inferior part of the uterus, which was also thicker and broader at this part than usual. The os tincæ as well as the neck were quite obliterated. That portion of the vagina which surrounds the inferior third of the uterus was covered by ulcerations; the remaining portion was found to be perfectly healthy. On introducing an instrument into the bladder and making an examination *per rectum*, it could be readily felt through the coats of this organ and the bladder; and by carrying the finger somewhat higher up the rectum, M. Recamier could feel, there being no intermediate organ, the other hand, which was pressing on the hypogastrium.

From the condition of the parts M. Recamier was convinced that no inversion of the uterus had taken place, and that the tumour was attached to the neck of the uterus, which he considered was tumified, and the whole organ in a state of prolapsus; this opinion was further confirmed when it was considered that the woman had been the subject of prolapsus uteri since she was twenty-eight years of age. Whether this view of the case was correct, or whether an inversion of the organ did exist, still the propriety of the operation, as well as the *modus agendi*, was the same.

Operation.

The instruments used in the operation were two silver knot-closers, and a long needle, which was affixed to a strait handle; this needle was slightly incurvated, and its eye was placed near to its point; it was armed with a long ligature, formed of five portions of waxed thread. The patient was placed in bed in the same position as in the lateral operation for the stone.

On making the patient strain, and pulling a little on the tumour, it was effectually withdrawn from the external orifice with nearly the whole of the uterus, and in this way MM. Recamier and Manjolin with facility got at the portion of the vagina which was situated above it. Great care was now taken to ascertain that no part of the organ remained attached to the vaginal parietes, which was found to be exceedingly thin, and having well assured themselves of this, they transfixed this part from behind forwards with the long needle before mentioned. Its point was directed by the finger of the left hand, and it was brought out an inch above the uterus; the cord or ligature was then divided in its middle, and the needle thus disengaged was withdrawn. Two ligatures were thus formed for the purpose of tying each lateral half of the vagina. They were situated an inch above the uterus, and being carefully separated from each other, the ends were joined together and confided to an assistant.

On introducing a catheter into the bladder only a few drops of urine escaped, and this not tinged with blood. The rectum likewise was found perfect. The knot-closers were properly adjusted, and the ligatures secured in the usual manner.

Four hours after the operation the pain had become so agonizing, as to require the ligatures to be freely loosened, after which and the application of thirty leeches the pain entirely ceased. At ten o'clock at night the ligatures were again gently tightened; some sharp pain was felt at first, but it soon subsided, and she slept five hours.

15. The uterus and cancerous tumour are each swollen a little, and from the latter there issues a little blood. M. Recamier placed a third ligature above the others, so as to embrace the whole of the pedicle; this occasioned symptoms of tormina, which, however, soon subsided.

No very urgent symptoms presented, the pulse was occasionally a little excited, which by strict antiphlogistic treatment was readily subdued; the ligatures were from day to day gradually tightened, and on the 23d the last ligature, which was a waxed thread, was replaced by one of silk.

28. The tumour of the uterus has become completely black, and totally insensible.

30. The uterus begins to putrify also, and emits a most disgusting effluvia, notwithstanding the application of the cloride of soda. The vulva is becoming excoriated. The consideration that the parts would be some time in separating, and that if it remained, the parts in the neighbourhood would be implicated, M. Recamier determined to remove it, which he did an inch below the ligatures.

From this period the pain which was experienced along the right broad ligament and adjoining parts disappeared; there was no fever, and the appetite was good.

Prescriptions. A bath every day, frequent injections into the vagina, and the patient to take a little food.

The remaining portion of the pedicle, with the ligatures, &c. came away on the 11th of November, and on the same day the patient sat up for an hour and a half. During the following night she was seized with violent bearing-down pains, which compelled her to void her urine and fæces in bed; these pains continued for four hours. Examining the vagina by the aid of a speculum, there was observed at its bottom a small transverse wound, about four lines in length and two in breadth; which was surrounded by numerous small red pellicles, evidently the commencement of cicatrization. The vagina was still a finger's-length in extent. From this time the patient regularly got up, her strength rapidly increased, and she experienced no further suffering.

On the 1st of December the patient was enjoying perfect health, and the vagina formed a *cul de sac* which appeared cicatrized and whole.

M. Recamier, in his long *reflections* on this case, alludes, among other things, to the bearing-down pain which the woman experienced, after the detachment of the ligatures. "Here is," continues M. Recamier, "a phenomenon occurring in the ganglionic system of nerves similar to that which the cerebral nerves present in the stump, after the amputation of an extremity; the sensation of the existence of a part which does not

exist." A plate accompanies this case showing the appearance which the fungus and uterus presented.—*Revue Medicale Jan.*

Pomegranate Bark as a remedy for Tænia. By M. Deslandes.

Case I.—A woman, 26 years of age, whose business was that of a pork-seller, has voided for two years portions of tape-worm. She had for a long time been subject to a fulness and giddiness about the head, as well as pains in the loins and epigastrium. These symptoms were more particularly felt on the coming on of the menses, a time at which she voided portions of the worm. Male fern root had been previously employed unsuccessfully. M. Deslandes prescribed for her a decoction composed of two ounces of pomegranate bark, boiled in a pint of water, till it was reduced one half; the first glass was rejected; after the second, the patient passed, without any colic, a worm fifteen inches long, having its head entire. The next morning she was seized with violent pains in the loins, attended with a diarrhœa and some colic, all which symptoms disappeared on the appearance of the menstrual discharge.

Case II.—A man had been for some years the subject of frequent giddiness and trembling, attended with an almost constant purging, and pain and uneasiness in the abdomen and epigastrium: the digestion was bad, and his countenance was of a yellowish tint. As the patient had voided portions of tænia, he was put under the use of the decoction of pomegranate bark, in the dose of half an ounce to half a pint of water. He persisted in this plan for six days, but only portions of the worm were brought away. M. Deslandes, having previously cautioned him as to its use, ordered two ounces to be taken; after the second glass, a worm twenty inches long, with its head complete, was brought away alive. The patient did not suffer any colic, but some giddiness, which, however, soon wore off. At the end of these cases, M. Deslandes cites some unsuccessful ones, owing to the decoction not being given in sufficiently large doses.—*Journal General.*

Physiological Experiments on the Spinal Marrow. By C. F. Bellengeri.

It will be necessary, perhaps, for the better understanding of this subject, to state that M. Bellengeri has already published a paper on the spinal chord in the 60th number of the Journal which we are at present analysing.* And as it will be impossible thoroughly to understand what we are about to state, without knowing the results of the first labours of M. Bellengeri, we are constrained to recapitulate what this ingenious man has proved, in accordance with the judgment of the illustrious Scarpa. 1st. That the spinal marrow is divided into six bands, two anterior, two posterior, and two lateral; 2d. That this division is made by means of a median furrow, or depression; 3d. That the origin of the anterior and posterior roots of the spinal nerves is triple.

We now proceed to state the further results obtained by the recent investigation of this interesting subject. 1st. That the posterior roots of the spinal nerves only, and not the anterior, preside over the perception of touch and sensation; 2. That the posterior roots of the same nerves produce alone the movement of extension; 3. That, on the contrary, the anterior roots determine the movements of flexion; 4. That there consequently results an antagonizing power between the anterior and posterior spinal nerves; 5. That the posterior threads of the chord, by means of the filaments of nerves which arise from it, produce the relaxation of the sphincter of the bladder, and the contraction of that of the anus; 6. Whereas the anterior contract the sphincter of the bladder, and relax that of the anus; 7. From which it results, that there is a true antagonizing nervous principle between the sphincter vesicæ and anus; 8. That the posterior, as well as the anterior bands of the chord, serve only for movement, and not for sensations; 9. That the lateral bands are not destined for sensation, but influence the force of the voluntary movements, and particularly the urinary bladder and rectum; 10. That the white substance of the chord serves only for movement, and not for sensation; 11. That the grey substance is alone destined to common sensation and special sense; 12. Therefore, in order that the sensation of feeling may be effected, it is sufficient that there be an approximation, or simple contiguity of the grey substance, without its necessarily resulting from its continuity; 13. That the inflammation of the grey substance

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* For a detailed account of these experiments, vide Lancet, vol. VII. p. 147.

increases and augments the tactile sensation; and lastly, That it is possible that the feeling is accomplished through the medium of some circulating fluid.

From what we have stated, the author draws the following corollaries, as applicable to pathology; viz. 1. That in paralysis, where movement is impaired, it is the white substance which is morbifically affected, and *vice versa;* also, that it is both, when there is complete paralysis, that is to say, a loss of sensation as well as motion. 2. That in partial paralysis, if flexion alone is prevented, the disease originates in the filaments and anterior roots of the spinal nerves, whilst, on the other hand, it is seated in the posterior, if motion is impeded. 3. That if incontinence of urine takes place from paralysis, the cause of the evil is in the anterior bands, or fasciculi; and again, the cause is situated in the posterior ones, when, as the attendant of the paralysis, there should be a retention of urine, whilst, if the disease is of a spasmodic character, the ischuria and retention of the fluid are referrible to the anterior fasciculi, whilst the incontinence show that it is the posterior bands of the spinal chord which are implicated.*—*Repertor. Medic. Chirurg. di Torino. July.*

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* Mr. Abernethy relates the following case, as illustrative of such changes, in his Lectures: "A young man one night got out of his garret window, and was climbing to the adjoining garret window of a chamber in which his *chere amie* slept, when, being too intent on his errand, his foot slipped, and he was precipitated on the pavement. He was picked up and brought to the Hospital, and on examining his sacrum, it was found to be smashed to pieces. From the extensive injury to the sacral nerves, both the detrusor, or expellant action, as well as the sphincter, or retaining power of the bladder, was entirely paralysed, and this I hold to be a very curious circumstance. As he could not pass his urine, I was sent every day to draw it off for him, and after I had continued to do this for about a week, the nurse said to me one morning, 'La, young man, you need not take the trouble to come here so regularly, for I can make the man p*** when I like,' and so saying, she began to press on the hypogastrium, and sure enough the urine flowed in as full a stream as if I had introduced a catheter."

THE ANNIVERSARY DINNER

Given to the Teachers of the Webb-street School, by their Pupils.

This Dinner took place at the London Coffee House, Ludgate-hill, on Thursday, the 2d instant. About one hundred gentlemen were present, and the Chairman on this festive occasion was a Mr. Beale, an old pupil of the Webb-street School. The progress which this school has made, in opposition to the *slumbering legitimate* establishments, is indeed a triumph of principle. It affords a complete refutation to the base and sordid assertions of the corporate monopolists, that medical science can only be taught by themselves, their relatives, or immediate dependants. Such a system cannot, nor will not, exist long. So deep rooted and universal is the feeling against the "aiders and abettors" of it, that on being casually mentioned in a speech after dinner, their very name was treated with mockery and derision.

After the cloth had been removed, and the usual loyal toasts drunk in the accustomed manner,

The Chairman rose and expressed his heartfelt gratification at witnessing so numerous an assemblage of the pupils of a school of which, he was proud to say, he had been a member at its earliest establishment, and from which he derived that professional information which had subsequently been available to him in practice. He said that no man more deeply deplored than himself, the loss of their late anatomical teacher, Edward Grainger; as a teacher, and as a man, his memory was equally entitled to respect. (Applause.) But he trusted, nay, indeed he was confident, that his situation was ably filled by their present respected anatomical teacher. (Continued applause.) And that his abilities and indefatigable exertions were well calculated to sustain the high reputation of the Webb-street School. He should therefore conclude by proposing "the health of Mr. Richard Grainger."

This toast was received with loud and long continued applause; and as soon as silence was procured,

Mr. R. Grainger rose to return thanks; he tendered his warmest thanks, not only for the cordial manner in which his health had been received, but also for the flattering manner in which it had been introduced. This was the second public occasion in which his pupils had manifested their partiality and kindness towards him,

and so deeply and sensibly did he feel the honour which was thus conferred on him, that he found himself incapable of conveying a true sense of his feelings, and if, therefore, he manifested a deficiency of zeal, he trusted it would be imputed to the true cause. He then proceeded, in an able and energetic speech, to impress on the minds of those present, the importance and necessity of a close attention to their studies, and more especially to anatomy. He said, that although occasionally ignorant and unqualified men succeeded in obtaining practice, yet their success was frequently short lived. Some notorious mal-practice drawing upon them the attention and just indignation of the public, they were stripped of their hollow pretences, and speedily sunk into that infamy which such nefarious conduct richly deserved. These observations more especially applied to the practice of surgery, in which errors committed were, for the most part, palpable and self-evident, whilst, on the other hand, in the practice of medicine, it happened, that for a long time a man might pursue his murderous system undetected and unexposed. He would, however, say without exaggeration, without flattery, that the present race of medical pupils were so deeply impressed with the importance of the study of anatomy, that their true comforts, nay, in many instances their lives, were given up in the pursuit of this important study. If such continued to be the practice, there was no fear that surgery would retrograde; modern surgery would proceed with still more rapid strides to perfection. (Loud applause.) For the long and accumulated acts of kindness which he had received at the hands of his pupils, he would take this public opportunity of returning his grateful thanks, and he could only regret so much was to be paid with so little means at his command. He had only one promise to give—that of pursuing the same line of conduct, and if his past conduct had gained their approbation, his utmost ambition was satisfied. In conclusion, he hoped that in the future career of his pupils through life—in their intercourse with fellow-practitioners, they would cautiously abstain from those petty jealousies and bickerings, which had too long and too justly been subject matter of reproach on the profession. Fair and honourable competition was to be expected, but it should be pursued with conduct that was consonant to the feelings of gentlemen; that, at the same time they were good *surgeons*, they might be fair and honourable men. Finally, Mr. Grainger concluded his speech by observing, that as in the ancient games prizes of merit were awarded, which stimulated the endeavours of the claimants, so would be their meed of approbation a constant stimulus with him to future exertion. (Long continued applause succeeded the delivery of these sentiments.)

The CHAIRMAN next proposed "the health of Mr. Richard Phillips," and the toast was drunk with much applause. He complimented that gentleman on the high estimation in which his scientific acquirements in chemistry were held. He said also, that Mr. Phillips possessed, in a pre-eminent degree, the faculty of obtaining the good will and kind regards of all his pupils.

Mr. PHILLIPS briefly returned thanks; he said, that more he wished, but more he could not. (Applause.)

The CHAIRMAN then gave "Dr. Gordon Smith," and alluded to his exertions in the study of forensic medicine. The toast was drunk with much applause.

Dr. GORDON SMITH, in rising to return thanks for the honour conferred on him, said, that in the words of our imortal poet,

> "There is a tide in the affairs of men,
> Which, taken at the flood, leads on to fortune."

He was disposed to think this evening that the lucky tide had occurred to him; his first duty, however, was to return thanks, which he did most cordially. Three years since, he well remembered, the founder of the Webb street School (E. Grainger) pronounced an oration under this roof at which hundreds were present, and in this room afterwards received the numerous congratulations of his listening and admiring friends.

(The remainder of Dr. Smith's speech was almost exclusively in relation to himself, a subject, says Lord Byron, on which few men speak agreeably.)

He alluded to his exertions as a teacher in the Borough, and said that he came late in the field, with bad health; that he had wasted his time and means in pursuit of the science of Forensic Medicine. He did not impute blame to gentlemen for not attending *his lectures*, because it was not required by the examinations at the College of Surgeons, or at the Apothecaries' Hall. But there was no situation so awful as that in which a medical witness stood, and he would say, no situation in which he is so often censured, and there was none in which medical men had been so unlucky. It had been a reproach to the profession for the last 60 or 70 years. He had at length accomplished an object, at which he had laboured up-

wards of seven years; he was now about to lecture at the Royal Institution, and the time there appropriated for lecturing was to be equally divided between him and Mr. Brande. Still he would be happy to continue his lectures in the Borough if gentlemen would enter to him, before the ensuing Wednesday, and in conclusion observed, that he would be as an elder brother to his pupils.

The healths of Dr. D. DAVIS, Mr. HUTCHINSON, the worthy Chairman, Mr. GRAINGER, senr. and the Stewards, each with a suitable meed of praise, were afterwards drunk.

Mr. R. GRAINGER rose to return thanks on behalf of his father, (who, although invited, was prevented from attending.) He alluded to the melancholy event of his brother's decease in a most feeling and affectionate manner.

Towards the conclusion of the evening, Dr. GORDON SMITH again rose to express his high gratification at the entertainment, and in the course of a long rigmarole speech, the drift of which we could not collect, said that he belonged to a society, at whose meetings he experienced much pleasure, but not more than on the present occasion. To this Society belonged the most respectable members of the profession—for instance, the *President of the College of Surgeons* and the *Master of the Apothecaries' Company*.

No sooner were these names mentioned than a burst of disapprobation and hisses was heard from every part of the room. For our parts, the association of respectability with these two *dowagers* only excited our risible muscles, and "provoked us to mirth."

The conviviality of the evening was kept up to a late hour, and many other appropriate toasts were given, amongst which we are informed was "A speedy reform to the College of Surgeons," but as we left the room with the Chairman previous to this occurrence, we can say nothing of the *oratory* which took place.

The meeting was enlivened by the presence of a good band, and the efforts of several eminent vocalists—Broadhurst, Taylor, &c. A song which was sung by Taylor, on the "Living skeleton," was received with much applause, and perhaps it is not the least important to mention, in conclusion, that the dinner was good, the wine excellent, and the company orderly.

HOSPITAL REPORTS.

GUY'S HOSPITAL.

A Case of Dislocation of the Humerus downwards, reduced at the expiration of six weeks.

A stout muscular man, of about 48 years of age, was admitted into the Hospital on January 31, under the care of Mr. B. Cooper, with injury to the left shoulder-joint, which occurred under the following circumstances:

Whilst pursuing his avocation as a top-sawyer, his foot slipped, and he fell into the pit beneath; on rising, he found there was so much injury done to the joint, that he could not move it, he therefore, immediately applied to a *Surgeon* at Deptford, who assured him that it was only a sprain, and gave him lotion to apply to the part affected. Finding that he did not recover the free use of his arm, he applied to a quack bone-setter, who told him there was a dislocation, and pretended to effect its reduction, using considerable force, but as he did not succeed, the poor man sought relief at the Hospital. A period of nearly six weeks had occurred from the receipt of the injury.

When the part was examined by Mr. Cooper, the nature of the injury was very apparent—Dislocation of the humerus into the axilla; all the diagnostic marks of the accident were present; there was the flattening of the shoulder, and the apparent projection of the acromion, the elbow was thrown from the side, and the proper axis of the limb changed, the central axis now running into the axilla. On carrying the elbow outwards, the head of the bone was distinctly felt in the axilla, but appeared to be thrown rather more forward than usual, so that it could be felt at the lower edge of the pectoral muscle. The motions at the shoulder-joint were very limited, the patient could swing his arm a little backwards and forwards, any attempt to move the hand up to the head proved abortive. The poor man said that he had suffered much numbing pain down the arm, and also that it was with difficulty kept warm. He had been of course entirely prevented from pursuing his laborious occupation, and expressed his apprehensions, that he should remain a "cripple for life."

By the advice of Sir Astley, Mr. B. Cooper determined on making an attempt to effect a reduction of the dislocated bone. On Thursday last, therefore, the

following plan was adopted at the suggestion of Sir Astley Cooper: two grains of opium were administered to him, and about two hours after he was bled very largely until a complete state of syncope was induced. At the time of venesection, the opium had apparently produced some of its narcotic effects. In a fainting state the man was conveyed into the operating theatre, and seated on a table, the right scapula was fixed by means of the split bandage, which was passed over the shoulder and fastened to a bar on a level with the patient. A towel was fastened around the arm immediately above the elbow, and to this the hook of the pullies was attached; extension was now made and gradually kept up for the space of forty minutes; during a part of this time Mr. Cooper stood behind the patient with his knee in the axilla; he afterwards passed a towel under the limb near to the joint, and this being put over the neck of an assistant, he elevated himself, and by this means endeavoured to raise the head of the bone; a degree of rotatory motion was at the same time kept up.

During the period in which these forces were applied, the patient continued so exceedingly faint, that he was with difficulty kept in the sitting posture. It was apparent on examination that the head of the bone had shifted its situation, being now near to the edge of the glenoid cavity. Mr. Cooper, therefore, directed the extension to be discontinued, conceiving that the long-continued force which had been used had probably broken through the new adhesions, and that it only required a force properly applied to elevate the head of the bone, and thus accomplish the reduction. Having placed his heel in the patient's axilla, the arm was steadily extended for a few minutes, when the bone was distinctly seen to return into its proper situation. The arm was bound close to the patient's side, and he was placed in bed. No unpleasant symptom has occurred, and the poor man expresses his gratitude in having had restored to him the use of a limb, of which he had been nearly deprived through the lamentable ignorance of some self-styled surgeon.

To Mr. B. Cooper much credit is due, for the persevering and judicious manner in which he accomplished the reduction.

ST. THOMAS'S HOSPITAL.

Fatal Case of Venereal Phagedæna.

J. M., 19 years of age, of fair complexion, pallid and unhealthy in appearance, was admitted into Magdalen's ward, on Thursday November 10th, under the care of Mr. Green. The patient described herself as being a woman of the town, and acknowledged that she had for a long time been addicted to the pernicious habit of drinking raw spirits, and that to an extent almost incredible. She had, when admitted, a very small ulcer on the upper and external labium pudendi, and she had also gonorrhœal discharge.

On the Wednesday following her admission, the attention of the surgeon was more especially directed to this case, in consequence of the ulceration having rapidly increased since Monday. The ulcer was now of the size of a shilling, excavated, but not very deep, and the bottom covered with a dirty yellow slough; the edges were regular and well defined. There was much inflammation of both labia, but more especially of the right, on which the sore was situated, and the patient complained of much burning pain in the parts.

The constitution sympathised with this state of parts, the pulse was very quick and jerking; the patient was restless and thirsty; the tongue was but slightly furred, and the skin was hot and dry. Mr. Green directed her to take eight grains of Dover's powder at bed time, and a saline mixture, with five drops of laudanum in each dose, every four hours. A purging powder to be given immediately. Continue poppy fomentations and linseed-meal poultices to the part.

November 19. The ulceration has much extended, and there is increased swelling of the parts; the nymphæ now being much swollen. The pulse continues very rapid, 130, and there is much irritation and restlessness. Mr. Green directed the appication of the *undiluted nitric acid* to the ulcer; to continue the saline mixture, and to take one grain of opium at bed time.

21. The application of the acid occasioned much pain, the sloughs occasioned by it have not yet separated; but it is apparent that the sore is still pursuing its destructive progress. The constitutional symptoms are not at all relieved.

Mr. Green directed the further application of the nitric acid, and *one grain of opium to be taken three times a day*, with *one grain of calomel at bed-time*. An opiate lotion to be applied after the nitric acid has been used.

24th. The sore increasing, and it has now destroyed the labium entirely on which it commenced, and it has now attacked the lower part of the opposite labium.

In consequence of pain felt upon in-

spiration in the left side, *twenty* leeches were applied yesterday, and this symptom is relieved. The patient complains of much pain from the sore, and is very restless, only obtaining short sleeps, apparently the effect of the opium. Directed to have mutton chops and a pint of porter daily.

26th. No improvement. Continue the medicines.

30th. The sore is somewhat improved in its appearance, although its ravages have not been checked, for both labia are now completely destroyed. The edges of the ulcer are well defined, and there is some appearance of granulation; there is a line of dark-coloured inflammation extending around the sore.

The patient now takes *one grain of opium every six hours;* the calomel pill, which she took at bed-time, was ordered to be omitted; there is slight tenderness of the gums. A carrot poultice to be applied in conjunction with the opiate wash.

December 4th. Mouth still slightly sore; the ulcer does not extend so rapidly. Continue the remedies.

6th. There is an evident improvement in the sore, the slough has separated from the bottom, and the discharge is of a healthy character. Continue as before.

9th. Much the same; takes 4 ounces of wine daily, and has omitted the porter.

13th. The ulceration has extended backward, between the cleft of the nates. She complains of pain from the application of the opiate lotion. Black wash, and carrot poultice to be applied.

17th. Ulceration again increasing; strong nitric acid to be applied, and afterwards the dilute acid-lotion, by means of lint.

Continue the wine and opium.

20th. The sloughs occasioned by the acid have separated, but there is no improvement on the whole. The pulse continues rapid, and the vital powers are evidently flagging.

24th. Much the same; apply the opiate-wash, in lieu of the nitric acid-lotion.

28th. The sore is fast spreading down the right thigh, and is surrounded at the lower part by a considerable blush of inflammation. Apply an hemlock poultice. Continue the wine, porter, and 1 grain of opium every six hours.

January 4th. The hemlock poultice occasioned so much pain, that it was omitted, and the opiate-wash again applied. The pulse is very rapid and feeble, and the countenance has become anxious; the disease is going on extending its ravages down the thigh.

January 13th. It is too evident, from the sunk expression of countenance, that nature cannot much longer withstand the dreadful ravages which have been going on.

On the 18th, we found her in a dying state, the parts had all become black, and presented a most appalling sight; there was a large slough on the back of the sacrum, which appeared to have arisen from pressure, and not to be of a specific character. The poor woman lingered on in this miserable state until the following Monday, when she died.

ST. BARTHOLOMEW'S HOSPITAL.

Case of Mortification of the Toes from imperfect circulation.

George Sargent, a poor Smithfield drover, was admitted into Kenton Ward on the 2d of December, under the care of Mr. Lawrence, having a purple and livid state of his right foot, and being altogether in an abject and miserable state. Four years since, he was attacked with paralysis of his right side, from which he subsequently recovered. At present, there is no pulsation evident in any part of the right arm, and it is only very indistinctly felt on the left; the skin is very cold and rough, and in both feet, and more especially in the left, it is quite icy cold; the toes of the right foot are completely black, and the cuticle is peeling off. It appears that he has received no external injury, nor has the affection of the toes been preceded by any inflammatory process; he has lived in one of the miserable hovels in Cow-cross with his relatives, and although he has never been without food for any length of time, his meals have been scanty and indifferent. He was directly put to bed, and had some warm wine and broth administered to him. After being in bed about three quarters of an hour, some degree of warmth was perceptible about the ancle joint, and the pulsation at the left wrist could be more distinctly felt, 140, exceedingly small and feeble. The wine was ordered to be repeated with caution, and a dose of house medicine to be given in the morning.

3. On making further inquiries of him to-day, he states, that it is three weeks since the affection of the toes first came on, and he attributes it to the sheep treading on them; they were at first painful, and then gradually became of the

appearance which they now have. He has passed a sleepless night. About eight o'clock last evening, reaction had taken place, which induced considerable inflammation in the limbs. The temperature of both limbs is now above the natural standard, and towards the toes, especially of the right foot, the redness of the skin is greatest, forming a conspicuous contrast between the jet black appearance of the one, and the deep red of the other. On the ball of the great and first phalanx of the second toes, two or three vesicles have arisen, which, on being punctured, discharged a dark bloody serum. The pain continues at present severe, and at intervals is so excruciating, that while he is talking, he is obliged to cry out from its momentary severity. There is also great constitutional disturbance, as well as an evident organic disease of the heart. On laying the hand over the cavity of the chest, the heart's impulse is felt distinctly over every part, and even in the upper portion of the abdomen. The respiration is quick and hurried, the countenance is pallid, the cheeks are puffed and bloated, and the lips are of a livid hue. There is a trifling œdematous state of the abdomen, and the liver appears somewhat enlarged.

Chest.—Stethoscope. The respiration is distinctly heard over the whole of the anterior part of the chest, with the exception of the cardiac region, it having a peculiar *mewing* sound; on the superior posterior part it has the character of the sibilous rattle, but is not at all audible in the corresponding portion from the intense impulse of the heart's action.

Heart. Impulse and *sound*, both very considerable; perceptible over the whole chest, both anteriorly and posteriorly; the *rythymical* contractions being at the same time quite irregular and indistinct.

The *sound*, however, is rather indistinct on the right posterior part of the back, and most without the stopper of the instrument; it is also more audible under the right than the left clavicle. (Hypertrophy with dilatation and inflammmation of the bronchial lining.) The tongue is rather dry and brown. On drawing in a full inspiration coughing is induced. No expectoration. Pulse 140, extremely feeble and occasionally intermitting. Bowels have been open once. Let him have four grains of calomel, with twelve of jalap immediately, with a blister to the chest and common linctus with squills. The right foot to be enveloped in a bread poultice.

7. The left foot has now acquired its natural warmth and colour. The cuticle covering the right toes is peeling off, and in appearance resembling dry gangrene; the little moisture present appearing to be derived from the poultice. An inflammatory action is very apparent around the diseased foot, and a line of demarkation may be said to have formed. The oppression at the chest having increased, Mr. Lawrence was induced to take 14 ounces of blood from the arm. The urine is scanty and very turbid, and from its appearance it was compared to pea soup. The following mixture to be substituted for the foregoing medicine:

Nitrate of potash, 1 *drachm*,
Supertartrate of ditto, 3 *drachms*,
Barley water, 1 *pint*;
to be taken daily.

8. Blood cupped and slightly buffed. Last night he passed more comfortably than he has done for some time; the lips, which were before of a livid hue, have now become much more florid. Pulse 120, very small and irregular, and the pulsation of the brachial artery on the right side can be indistinctly felt.

9. The toes have partially separated. The powerful action of the heart continues; as some benefit appeared to result from the last bleeding, eight ounces of blood were ordered to be drawn from the arm.

15. The cough, which is now attended with expectoration, has become very troublesome. The line of separation along the foot has quite disappeared, and the gangrene has extended more over the foot. The toes have partially separated and a very offensive odour is emitted from them. The parts are enveloped in a linseed meal poultice, with flannels over the whole, and the bowels are kept regular by house medicine. Ordered to persist in the use of the mixture as before.

19. The pulse is extremely irregular, at one time not more than 80 in a minute, and at another 120, and this occurring in the space of a few minutes.* A second line of separation appears now to have formed on the foot, but as yet it is indistinct, and is situated about three inches above the former line. Mr. Loyd, who saw the patient to-day with Mr. Lawrence, was induced to believe, from the still existing violence of the heart's action, that a little more bleeding would be of service, to which the latter gentleman acceded, and eight ounces were consequently taken from his arm.

21. There is a peculiar pallid cast over the countenance to day. Pulse continues

* To-day it was discovered that the man, instead of taking the nitre mixture as was ordered, had had the digitalis mixture continued.

irregular and fluttering, 108. The mixture to be discontinued.

30. Evidently worse; the partial line of separation around the diseased part has now quite disappeared, and the lower part of the limb has become cold. He lingered on for some days afterwards, and at last sunk. We regret, as did every one who saw this case, that the body was removed early in the morning by the relatives, and therefore an examination was prevented. One of Mr. Lawrence's dressers called at the house to request permission, but he was glad to hasten away with a sound head. Mr. Lawrence said, that he considered the case exceedingly interesting, as affording an instance of gangrene *occurring without any external injury or previous inflammatory action.* Dr. Thompson, in his lectures on inflammation, says, that such may occur from mere imperfect circulation, as was the case in this instance, but that such cases are very rare, and he has only met with two instances.

Post-mortem Examination of the Body of Mary Caea.

This unfortunate woman, it will be recollected by our readers, was lately executed at the Old Bailey for the murder of Maurice Fitzgerald. In a moment of passion she inflicted the deadly wound, for which she has to make atonement to the laws of her country. Anxious to have the awful judgment deferred, she pleaded pregnancy; a jury of matrons, however, decided on the contrary.

At the time of committing the rash act, she was suckling, and had only a short time previously given birth to an infant. In the accounts published in the daily papers of her execution, it was stated, that as soon as the fatal drop fell, life appeared to be instantly extinguished, and the unhappy woman was launched into eternity without a struggle. After hanging the usual time, the body was cut down and delivered over for dissection.

The woman having pleaded a state of pregnancy, as before stated, and also being reported to have died a comparatively easy death, it may not be uninteresting to record the appearances which presented themselves on inspecting the body.

The brain was the first part examined; on reflecting the portions of scalp, the superficial veins presented no unusual congestion. The skull-cap being removed, the vessels of the dura mater were found to be only slightly distended. A very inconsiderable effusion had taken place between the pia mater and arachnoid, but neither these membranes nor the substance of the brain denoted unusual vascularity. Some considerable effusion of fluid had broken into the lateral ventricles, and on bending the head back, some fluid also escaped from within the theca vertebralis, after the brain had been removed. The arteries of the brain had some blood in them, but the quantity was very trifling. The blood in the arteries, as well as that which was contained in the sinuses, presented a very dark appearance. On examining the neck, it was discovered that the rope had caught between the thyroid and cricoid cartilages, and the weight of the body had displaced the latter; from which circumstance it happened, that the function of respiration was instantly put a stop to, and as there was no displacement of the cervical vertebræ, or laceration of the transverse ligament, it satisfactorily explains what was before adverted to; death occurring without any very obvious suffering. It does not certainly follow that death took place instantly the drop fell, indeed it is well known that the circulation will continue for some minutes after respiration has ceased. This circumstance then becomes a question of considerable moment, and well worthy of attention. M. Louis, who paid great attention to this subject, it is well known, ascertained, that of the two executioners who were so celebrated in Lyons and Paris, the one dispatched the criminals he executed, by giving the body a peculiar twist, and in this way dislocating the head at its articulation with the neck, while the other executioner destroyed them by inducing asphyxia.

The function of respiration ceasing, black blood gets into the left side of the heart, and this being unfit for the performance of the animal economy, life ceases.

It may be observed, that the blood, in whatever part of the body it was examined, was found in a fluid state, although the weather at the time was excessively cold, so as to render every joint perfectly stiff. A small portion of blood was also contained in the different arteries of the body, similar to what was met with in those of the brain. The uterus and ovaries were subsequently examined in the most careful manner, but there were no appearances indicating a state of pregnancy.

For the information of our phrenological brethren, we may state, that the animal propensities considerably predominated over the intellectual faculties, and that the organ of destructiveness was large.